

Minicam Photography



MARCH, 1945

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★ Minicam Photography

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Cover—TOUMANOVA by PAUL GARRISON



U. S. Navy Photo—See page 62

EDITORIAL ASSOCIATES: John Hutchins, A.R.P.S., George R. Hoxie, A.P.S.A., L. Moholy-Nagy, Audrey Goldsmith, CONTRIBUTING EDITORS: Earl Theisen, Percival Wilde, A.R.P.S., Stuyvesant Peabody, A.R.P.S.-F.P.S.A. EDITORIAL SECRETARY: Agnes Reber, ART DIRECTOR: Robert Wood, BUSINESS MANAGER: Aron M. Mothieu, FRANK ZACHARY, NEW YORK EDITOR, 35 PARK AVENUE, NEW YORK 16, NEW YORK. PHONE: LEX. 2-6183

MINICAM PHOTOGRAPHY (TITLE REG. U. S. PAT. OFF.) PUBLISHED AT 22 E. 12th ST. CINCINNATI, O. PUBLISHED MONTHLY BY THE AUTOMOBILE DIGEST PUBLISHING CORP. YEARLY SUBSCRIPTION, \$2.50 IN U. S. A. AND POSSESSIONS, CANADA AND COUNTRIES IN PAN-AMERICAN POSTAL UNION, \$3.00. ELSEWHERE, \$3.50. SINGLE COPIES, 25c. EASTERN ADVERTISING OFFICE: EVERETT GELLERT, 35 PARK AVENUE, NEW YORK CITY, TELEPHONE LEX. 2-6183. MIDWEST ADVERTISING OFFICE: BERNARD A. ROSENTHAL, 333 N. MICHIGAN, CHICAGO, ILL., TELEPHONE FRANKLIN 7100. WEST COAST OFFICE: LOS ANGELES, 403 WEST 8th STREET, R. H. DEIBLER. ENTERED AS SECOND CLASS MATTER AT CINCINNATI, OHIO, U. S. A., MARCH 21, 1936, UNDER THE ACT OF MARCH 3, 1879. PRINTED IN U. S. A. ESTABLISHED 1937.

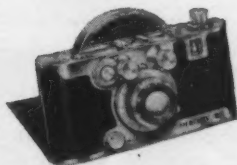


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1. "First Aid" for ex-servicemen, who want to carve lucrative careers in photography, may be had at SMP under the G. I. Bill of Rights. Among a handful of veterans now taking advantage of these educational privileges at the School is talented SAUL BARON (right) who leaves the airborne infantry behind him and faces a bright camera future in fashion and illustration.



2. Wisdom, distilled and re-distilled, is offered to eager SMP students by the School's brilliant, star-studded faculty. Quick to benefit was recent graduate DONALD LENERTZ (left) who now detects stamp frauds by means of scientific photography.



3. Unmistakable evidence of lessons in portraiture well-learned is this excellent shot by THOMAS B. McCRACKIN (right). Recently released from the Army, McCrackin was graduated from SMP in October, 1944. On SMP's recommendation he joined the famed Jon Abbott Studios, where another SMP'er, Ralph Baxter, is also gaining valuable experience. SMP graduates are sought after by the nation's leading studios.



4. Beloved of women is the field of fashion-photography. Latest SMP fair-weather student to succeed in this field is GERTRUDE BODENHEIMER (above) who joins top-notch Apeda Studios.



5. Typical example of the speed with which SMP students attain success is JOHN J. KEPPLER (above) who joins swank Avedon Studios only one month after his graduation. Nice going!

6. Information Please! "What about fashion fees?" Specialized courses, day or evening, are exceptionally moderate. Visit the School, or write for outline of courses. Address: H. P. Sidel, director, Dept. M3.

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The Last Word

Never Matter?

Sir:

So you finally got around to Moholy. It took you 8 years! What is the difference between Moholy and the gentlemen of the PSA? May I be the first to answer? The latter are interested in craftsmanship—how to tone snow blue, how to make an ocean look wet—how to balance the dark mass of a long stairway with the light bright figure of a nun ascending it?

And Moholy what interests him? Ideas. He has something to say concerning people and uses photography as a means of saying it. He is a revolutionary, a tenacious experimenter, a missionary, a world saver, a man who just naturally feels that if most people are for something, he should for that very reason examine it critically. Moholy is a force.

That is why he is important regardless of what work he did, for he would always be concerned with logic as against superstition and people as against the various demagogues who forever torment them.

Most of the FRPS's and the like aren't primarily concerned with ideas as they affect the relationship of one person to another. That's why their pictures never revolt, never irritate, never offend, and all too often, never matter.

EDMONIA COFFIC VAN DER VERE,
Somewhere in Holland.

Couldn't Swallow

Sir:

In regards to the article in your January issue about L. Moholy-Nagy or Holy Mahogany or whatever he is called. He may be a good photography Instructor, but in my estimation he is a screwball of the first water. How any one can call this art (January issue—P. 65) I can't see. If it is art may the Lord forgive me for trying to learn photography. Incidentally this is my first letter of this kind but this article was so brazen I couldn't swallow it.

Disgustedly,

S. J. THOMAS,
3736 Pageland Dr.,
Columbus, Ga.

Color

Sir:

Color photography is out of its "diapers"—you have a wonderful opportunity to show that it has grown up. Please set your standards very high—show what can be done to make real pictures and please no dogs! glamour pussies! fashion shots! travel shots! and other records. Leave them to the advertising department. Make those four pages something to strive for—you can get plenty of material. Pick the best and good luck to you.

GUSTAVE H. SEELIG,
50 Charlesgate East,
Boston, 15, Massachusetts.

Character Portrait
OF AN AMERICAN CITY
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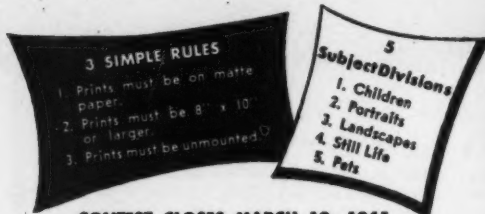
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CONTEST CLOSES MARCH 10, 1945

The decision of the judges will be final. No prints can be returned. All rights in prize winning prints shall become the property of John G. Marshall, Inc., to be used by them in any manner or form. The contest is open to everyone except the officials and employees of John G. Marshall, Inc.

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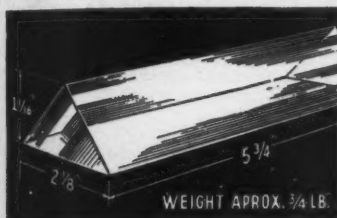
Prize winning pictures in each subject division will be sent on a tour of the nation to be exhibited and voted upon by the public. The one print voted best will be awarded, in addition to whatever prize has been won, the Grand Prize of \$500.00 in War Bonds.

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6020-M	18	49	Uncemented	50c
6021-M	18	49	Cemented	60c
6022-M	25	95	Uncemented	50c
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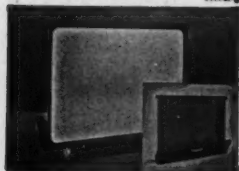
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Sir:

I am the founder of our High School (all boys) Camera Club of fifty-six members and consultant-advisor to a H. S. (all girls) Camera Club, also in this city, of fifty members. These two organizations hold joint meetings and activities and we find MINICAM of great assistance to us in preparing material for lectures, demonstrations, etc., etc. The problem of locating the material we want at various times, however, is complicated by the fact that we have no index for this vast amount of information, which means that a great deal of time is required to locate all the data available. Our files of MINICAM include every issue but three (borrowed at some time and not returned) from the beginning.

The purpose of this letter, written incidentally from my hospital bed of the moment, with no typewriter available, is to ask whether we can obtain from you (and at what cost in U. S. funds) a complete set of Indices for our files, including the 1944 Index.

I would appreciate very much hearing from you on this matter at your earliest convenience.

LEO P. M. DEVINE, O.M.I.

Director Camera Club,
Saint Patrick's College,
281 Echo Drive,
Ottawa, Ontario.

* MINICAM stopped issuing an index, but we know a certain Captain (see below) . . .—Ed.

Army Way

Sir:

One often fails to realize how much real meat there is in MINICAM. Each month this is brought home to me rather vividly. When I make my subject index for the month, after having finished reading an issue, I always have a neat stack of 3x5" cards to file for future reference. These cards are filed directly under the subject involved. I have them for many issues of MINICAM.

Now and then one is called upon to develop a larger sized roll film than he is used to; for example, 116. I have found that the larger size film often will not thread in the developing spool with the ease of a narrow one. This causes much dark room dilemma. To get around this, I made an apron from an old acetate film base. I used X-ray because of the length and weight. This sheet, which is the exact size of the film is simply pinned to one end of the roll film with a steel needle. The threading is then effected very easily without jumping out of the track in the spool.

WENDELL C. ALLEN, Captain,
Laboratory, AAF Regional Hospital,
San Antonio Aviation Cadet Center,
San Antonio, Texas.

P. S. A.

Sir:

The January issue of MINICAM was the finest you have put out and the color illustrations were tops.

FRED QUELLMALZ,
The Photographic Society of America,
Park Village, York, Pa.



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A-1

Sir:

The Photographic War Services, Inc., has elected the following officers for the coming year.

Isadore Arnold Berger, President,
Robert Newmann, Vice-President,
Marcia Bienko, Secretary,
Arthur G. Vaughn, Treasurer.

This is an organization of volunteer photographers devoting their time to the war effort. The two most important projects it has undertaken are the photographing of the



Berger and his Detroit group in action at U.S.O.

servicemen at the various service centers, and at veterans' hospitals, and sending these pictures home to their loved ones.

Another of its projects is just the reverse of the above. The photographers go to churches and other places of community gatherings and photograph the parents, wives, children, and friends of the servicemen, and these pictures are then mailed to the men.

No charge of any kind is made for these pictures. The film is furnished free through the courtesy of the American Legion.

Those interested in giving their assistance to



Typical photo by I. A. Berger; free, for service men. these projects might contact Isadore Arnold Berger, 1550 National Bank Building, Detroit 26, Michigan.

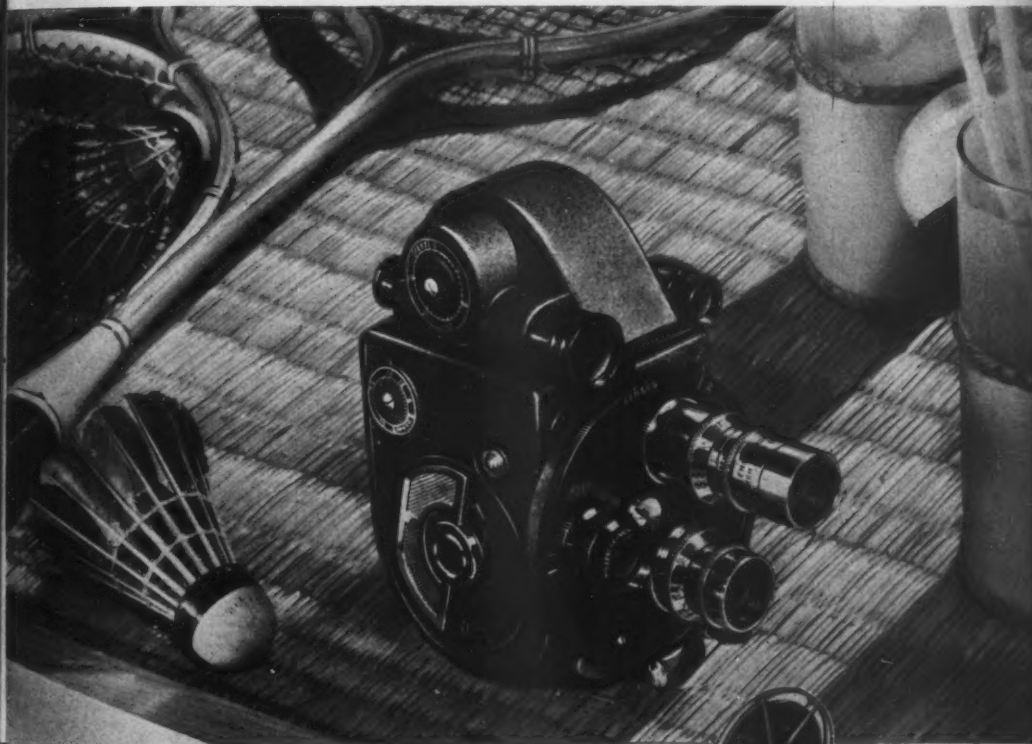
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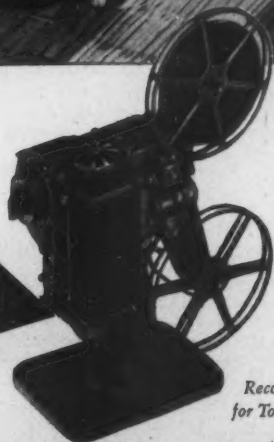
What spells victory for a sport lover . . . or success for an amateur cine fan? You can credit skill and experience. We like to add *equipment*, for fine equipment makes a difference in results as well as in the pleasure of your hobby. Creating and perfecting motion picture equipment have kept us on the alert. It has trained us to plan ahead for the even finer postwar Revere 8mm Camera and Projector. Look forward to Revere. Meanwhile, buy bonds—and hold them!

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MARKETS FOR PHOTOGRAPHS

By AGNES REBER

EDITORIAL SECRETARY, MINICAM PHOTOGRAPHY

THIS is the second issue of MINICAM to contain our new market department for editors themselves to tell you what kind of photographs they want to buy. For basic details on selling your pictures see the February issue, page 16. In coming months, there will be separate discussions of how to sell pictures to newspapers, magazines, syndicates; and also how to work through a photo agency. These will all be written by editors in the business of buying pix from freelance photographers.

Crowell-Collier Publishing Co., 250 Park Avenue, New York City. Mr. James A. Quigney, Manager of the Photographic Department, writes us that *American Magazine*, *Collier's*, *The Woman's Home Companion*, all need photo-stories, but suggests that it is wiser for the contributor to send an outline of the photo-story subject before actually getting to work on it. That way there will not be so much opportunity for disappointment. *American Magazine* also wants interesting personality photographs. Cover suggestions in color may be sent for *Collier's*. Kodachromes should be 4x5 or larger. Payment is at standard rates, on acceptance.

The Farmer-Stockman, P. O. Box 1619, Oklahoma City 1, Oklahoma. Ferdie Deering, Editor, has use for only a limited number of 8x10 glossy, contrasty, black and white pictures of agricultural or home life photographs typical of the rural southwest. Cannot use any pictures which are fuzzy, out of focus or lacking in detail. No pictures of city life in any way, nor agricultural pictures that are not typical of Oklahoma or Texas. Payment is \$2.00 to \$10.00 per print, on acceptance. No color shots.

Progressive Farmer, Birmingham 2, Alabama. T. W. Godwin, Art Editor. Rural photographs of a scenic nature or any shot that could have been made outside the city, and preferably in the Southeast, South or Southwest. Pays \$5.00 to \$10.00 for exclusive prints; \$3.00 for others. Kodachromes bring from \$50.00 to \$300.00.

Railroad Magazine, 205 East 42nd Street, New York City. Picture stories dealing with various phases of railroad operation. Query the editor on the subjects. They are overstocked with photo features of women in railroad work. Pays professional rates, on acceptance. Prints should be 5x7 in size. No color.

Tide, 232 Madison Avenue, New York City. Miss Lillian R. Pierson, Editor, wants good informal or candid shots of people prominent in the advertising and marketing fields—presidents, vice presidents, account executives, advertising directors, promotion and publicity directors of all big advertising agencies or advertisers, or of newspapers and magazines or radio. Payment is

\$5.00 for each picture used editorially; \$10.00 for cover pictures, on publication. No color.

Front Rank Magazine, 2700 Pine Boulevard, St. Louis 3, Missouri, writes that they need photographs of the following: Older young people in recreational and social activities, family groups, church scenes, idealistic pictures, interracial groups, scenery. Pays up to \$5.00, on receipt of bill, after acceptance. No color.

Printing Magazine, 41 Park Avenue, New York City 7. Uses photographs mostly on direct assignment to cover convention groups, etc. Also pix of news events relating to commercial printing and lithographing plants (no newspapers). Contact 4"x5" prints or larger are OK. Payment is \$2.00 each, plus space rates for area occupied by pix and caption. Captions must be complete with names and firm names of those shown. No color.

The 19th Hole, 1315 Cherry Street, Philadelphia 7, Pennsylvania. The Editor, Marion P. Jassen, writes that they use photographs of different golf subjects. Payment is made immediately upon acceptance. Photographs not purchased are returned immediately. No color.

Horticulture, 300 Massachusetts Avenue, Boston, Massachusetts, can use pictures of gardens, flowers, fruits, vegetables, landscapes. Glossies are preferred, and are paid for at the rate of \$3.00, on acceptance.

Farmers Guide, Huntington, Indiana. Anyone who has a farm story suitable for illustrating should send in photographs—unusual scenes and pictures from which cover designs may be developed are wanted. Payment is \$5.00 each, on acceptance. No color.

The Alaska Sportsman, Box 118, Ketchikan, Alaska. Needs photos of winter sports, animals and scenery. All pictures must be Alaskan, however. Payment is \$1.00 to \$3.00, on publication.

Professional Football Illustrated, Elbak Publishing Company, Mount Morris, Illinois. Needs action photos from National Football League games, for which they pay \$5.00 each.

The American Printer, 9 East 38th Street, New York City 16. Send black-and-white pictures of printers prominent in the news, new buildings, plant interiors that show efficient layout or some special method of production. Payment is \$3.00 each, on publication.

Carolina Co-operator, Raleigh, North Carolina. Wants farm scenes—especially pictorial ones—and scenes of farm activity and personalities. Payment is \$3.00 to \$10.00, upon acceptance.

Hatchery Tribune, Mount Morris, Illinois. Mr. S. L. Althouse, Editor. Wants negatives and photographs pertaining to poultry and hatchery subjects, and human-interest pictures for cover use.

California Cultivator, 317 Central Avenue, Los Angeles 13. While this magazine usually supplies its own photographs for illustrative purposes, they sometimes use photographs submitted by machinery concerns.

Young People, American Baptist Publication Society, 1703 Chestnut Street, Philadelphia 3, Pennsylvania. Uses glossy prints of young people's activities, especially in connection with church and church school, and other subjects of religious or social significance. Payment is made first of month following acceptance, at rate of from 50c to \$5.00.

Knox Reeves Advertising, Inc., 600 First National Bank Bldg., Minneapolis, Minnesota. Mr. Blake Cox writes that they are interested in looking at good, action, human-interest photographs for possible use in Wheaties advertisements. These would be adjacent to a package of Wheaties as part of the advertisement pattern being used. These photographs would fall into two classifications: general subjects, farm-flavored subjects. Photographs submitted should be 8"x10" glossy prints, together with return postage and having model releases. Payment is from \$10.00 to \$25.00 for each photograph, upon acceptance.

Laundrymen's Cleaner's Guide, 161 Spring Street, N. W., Atlanta, Georgia. Uses photographs of laundry and drycleaning plants and management in the Southwest and Southeast. Payment is \$1.50 to \$3.50 each, on acceptance. No color.

The Grail, Benedictine Abbey, St. Meinrad, Indiana. The Rev. Jerome Palmer, O. S. B., who is editor, writes: "In general we use photographs only that illustrate articles accepted for publication. It would be a great service to have a file here in the office of addresses of photographers upon whom we could call for photographs of any special kind (personalities, institutions, nature, etc.). Any photographers caring to file their addresses could send a postcard with description of kind of pictures he is able to furnish. Photographer may specify amount of payment, which would be made on acceptance."

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Just spread open—
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30 in. x 40 in.....	\$ 7.50
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IN 50 SQUARE INCHES, Ralph Crane composed a photographic essay in which the Hollywood set wiggles happily in the sunshine. Where else but Hollywood would the swimming pool bend into a parabola, hemmed in by flowering shrubs? The two-some cabana, complete with its middle table for drinks; the rubber boat complete with paddle, are such perfect satire that people who know Preston Sturges feel he rigged it that way.

Preston Sturges

A PHOTOGRAPHIC INTERVIEW BY RALPH CRANE

PRESTON STURGES, writer and movie director, creates his own myth and where the real man ends and a swaggering character from one of his own movies enters is anyone's guess.

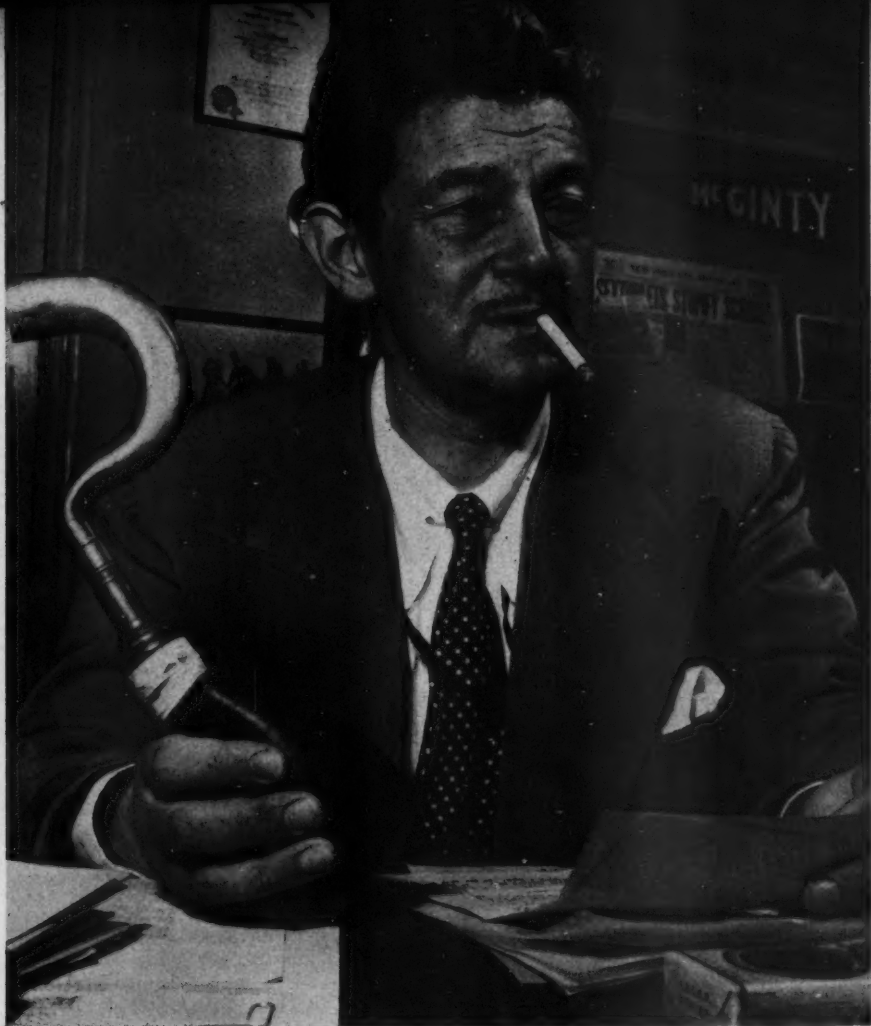
The editors of *Vogue* recently polled the distinguished morticians of Hollywood and from them discovered that Preston

Sturges is one of Hollywood's most significant figures, in fact, he is among the first five citizens of that community who could be interred free, gratis and for nothing—with a marble urn, an everlasting flame, a plot of well tended lawn thrown in extra—all for the very special value of his name.

SECRET of Ralph Crane's success, as a *Life Magazine* photographer, is the way he uses an individual's personal life as backdrop. How completely this picture tells us about "Pres" Sturges: the play room with its generously filled bookcases, the library-size dictionary open on a separate table. The room is big enough to accommodate a pool table, a ping pong table. Play that on your kitchenette. The boy and his dog sit quietly watching while pop plays pool. The iron grille work suggest the richness of the upstairs.

Crane contrived to use everything in the scene to make his interpretation. He says: "I shot from a high viewpoint, using my 3¼ by 4¼ Graphic with a wide-angle lens. Three open flash globes furnished the illumination (open flash is made by setting the shutter at bulb; open the shutter; set off the flash and then close the shutter)."





HONKI HONKI goes the horn and in comes Preston Sturges' secretary. You're not being kidded. That's the way he calls her. To show the enormity and improbability of this character, Ralph Crane used a wide-angle lens to enlarge even the pack of Lucky Strikes on his desk, as well as the hand. The long ash on the cigarette is no accident. It's there to show the studiedness that Crane believes is part of the Sturges character.

The great hits he has written or directed, in the order of their rise and fall, are *Strictly Dishonorable*, *The Power and The Glory*, *The Great McGinty*, *Christmas in July*, *The Miracle of Morgan's Creek*, and *Hail The Conquering Hero*.

Behind Preston Sturges is a vast education, imbibed from the better universities in Europe which stopped abruptly when

the first World War began. After his discharge from the Army, he went into the business of manufacturing beauty preparations and didn't do too well. His big break came when Brock Pemberton bought his play *Strictly Dishonorable* which ran over a year on Broadway and set Sturges up. He never left the show business and is doing nicely, thank you.



PRES calls his son "Mutton," and here the two are playing together with mother, Louise, looking on. Showing things happening is one of Ralph Crane's first concerns, because through that he captures interest.

The picture was made with a double flash; more intense illumination directly behind Sturges and his son directs attention to them by giving separation to the background.

Where there are a number of persons in the same photo or where the background is dark or fussy, the lighting may then be directed more intensely to the central characters instead of behind them. In this picture Ralph Crane wants also to show what the room is like, while at the same time playing up the action of the picture.

FABULOUS, but one of Ralph's favorite shots because he says, "readers like to go behind the scenes with celebrated persons." The composition and novelty capture attention. It took fifteen minutes to make, to see that the shoes were studiously placed, and to see that light and dark suits intermingled.

This is the manner of the man that Ralph Crane was asked to photograph, and to do it in such a way that the man would come through the pictures and stand there, firm and stalwart, as a man should stand; unless the photographer saw it differently.

What Crane saw is shown here. He did it by rejecting the close-up portrait, and choosing instead the busy, bright improbabilities of Sturges' life and environment. In each picture, the background helps the comment.





THE LOW ANGLE on this homey scene between father and son makes it seem different even though this kind of photograph has been widely made. The careful placement of the reading lamp, the relative positions of the faces and the hands makes the picture hang together.

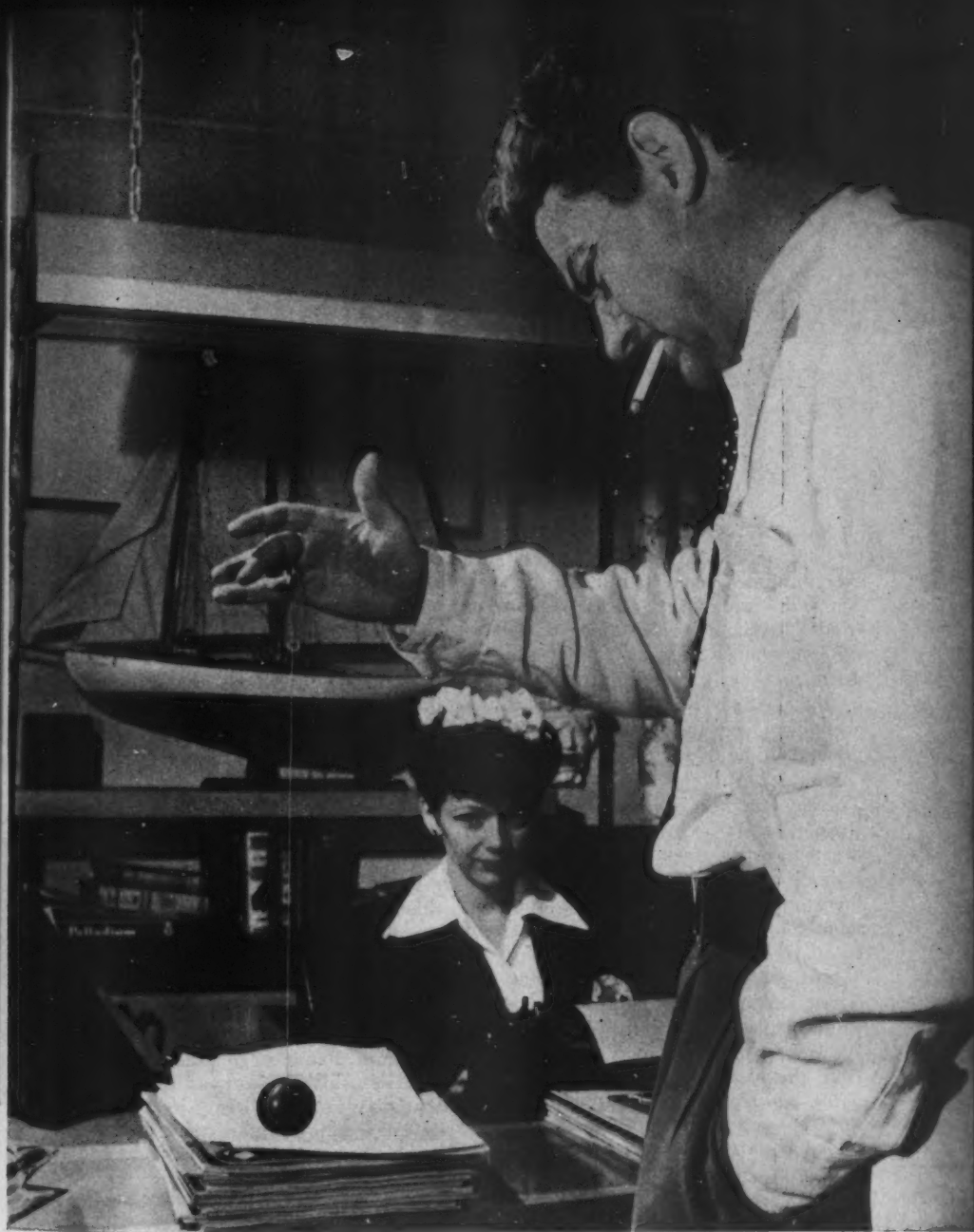
It took Crane all day to make the 50 exposures at the Preston Sturges home. Pres himself, was a dark-room man, owning his own darkroom in 1919 in New York, and has his own ideas about successful still pictures. Crane's pictures he says are good because, "They get detail. A photograph is no good unless it is sharp and the details stand out. Photography is interesting for its detail, and through that we know what people are like. Brady's pictures of the Civil War, for example, are still interesting because the focus was sharp, and from them we can still see what people wore, what they did, and such, in those later days. Without the Brady pictures of that period we would know a lot less of that time. If Brady photographed silhouettes against a sky or suggestive thematic things, his pictures to-

day would be less informative and valuable," Sturges concluded.

At the Sturges home, Ralph Crane first made shots that showed the immediate landscape. These established a setting for the points he was later going to bring into closeup. Then in the house he backed up enough to show what some of the rooms were like, while at the same time showing Sturges in action. After that his shots were closeups of Pres because that was what the whole idea was about.

The closeups were not just mug shots, but in each a possession or habit that belonged to Pres were included.

After looking at Ralph Crane's results, MINICAM readers will know more about this noted director-writer, more than any number of descriptive words could convey.



AT WORK, Preston Sturges paces while dictating, often fiddling with things to get ideas. The composition and depth of focus (both yo-yo and sail boat are in focus) is made possible with the short lens of the Rolleiflex; incidentally, Sturges doesn't care for this picture because the secretary is not busy.



What to do with OLD SNOW

NEWELL GREEN, A.P.S.A.



Carl Mansfield

IT'S easy enough to find a good snow picture right after a storm. You rush out at the first ray of sunlight and everything is covered with a deep blanket. The roofs are buried under mounds of white, the snow is piled along the paths, the long shadows dip and curve over the drifts, and the fresh, crisp texture sparkles in the sunlight. There's a shot almost every way you turn your camera. Sure, that's the time to get the snow pictures.

But look, suppose the storm comes on Tuesday, and you have to warm an office chair every day from nine to five, so that it gets to be the week-end before you have a crack at that snow. In the meantime there are a couple of days of warm sun, some cold nights and maybe a little rain to boot. By the time you go after it on Saturday afternoon, the snow is far different looking stuff than was the lovely white blanket you saw that first morning. It's gone from the roofs, melted away from the base of the tree trunks; walks, paths, and roads are bare ground, and the surface is pitted and furrowed. Still, you *must* have a couple of snow pictures!

Well, it's a cinch you won't find as many pictures in a given area as you would right after a storm, but they are still around if you know what to look for. The point is, you have to limit your subjects and confine yourself to special things.

In general, you will have to concentrate on smaller areas when you are working with old snow. No broad sweeps and

big expanses, especially, no views. Even when the snow is fresh, they're not much good, and later on they're a waste of film. Buildings don't go well, either, because the snow will have melted from the roofs, steps, window sills, and everything, giving them a very unpictorial look. Better dodge all the trees you can, too, because bare branches and trunks always print dark and make your picture spotty. Instead, hunt for close-ups which will emphasize texture and shadows and take advantage of the fact that the snow is old.

For instance, take a look at the picture titled "Dancing Shadows." The snow couldn't have been much older than it was here and still be snow. It may have a wind-blown texture, like small ripples on the water. Get that sort of thing in the right light and perhaps you will find a picture that is as good as anything you take right after a storm. It's the lighting that's important. Twenty minutes sooner or later and this particular picture just wouldn't be there. The sunlight had to slant down the slope at just the right angle to make each little ripple cast a shadow and define the texture. Add that to the pinetree shadows streaking down the hill and you make a picture out of relatively few elements.

It's the shadows which make this picture and you'll find that it's the shadows which make many of your pictures when



Dancing Shadows

Newell Green Side Road



Elizabeth Hibbs

OLD SNOW can be very unglamorous in the city, but get out in the country under the right light conditions, close in on a small area, and you can make crusted remains seem photogenic.

you are restricted by old snow. Consequently, get in the habit of studying every shadow on the snow. Keep watching them with their countless changes as the sun swings around. When something looks promising, go back to it three or four times. Remember, a shadow which may not make much of a composition at nine-thirty, may make a honey at ten-fifteen.

Well, that's one thing you can look for. It's a good chance to use your imagination and develop your ability to see a picture in a small area. If you have never tried it much, don't assume immediately that it's beyond you. Look through the old annuals and magazines, studying snow pictures of this type. You'll soon find yourself discovering ideas of your own. Pay particular attention to lighting, because a good snow picture always needs the right lighting. Keep watching for places where the sunlight brings out the texture or emphasizes the contours of the snow. Then see if you can't find a picture in it somewhere.

Incidentally, the same technique applies to shooting old snow which applies to taking any sort of snow picture. You use a yellow filter, shoot with cross-light-

ing to bring out the texture, focus on the foreground, give it a generous exposure and don't overdevelop. The reason for all this has been explained so many times, there's no point in doing it again. However, if you don't understand the why and wherefore of all this, look up any article on snow photography. You'll find one in the last issue of MINICAM—such information is there because writers rarely leave it out.

Tracks are something else which may help you get a picture—wagon tracks, sled tracks, ski tracks, auto tracks and truck tracks. You may not find sled and wagon tracks unless you are way out of town in the real snow country, but the others could be near at hand. They're all nice in fresh snow but they're good in old snow, too. If they thaw and freeze a couple of times, all the ruts will show different textures and indentations, which a good lighting will bring out. Elizabeth Hibb's snow shot shows the interesting formations you get in rutted tracks which have been through two or three changes of weather. It also shows another possibility in old snow. That's the definite pattern of furrows and ridges, made by a

hard rain on top of the snow. If you happen to find these, try to use them, because they'll give you added texture. Here's a tip, however. It takes a low sun to show them up on your film, so plan to shoot them in the early morning or late afternoon.

While on the subject of tracks, don't forget footprints. Many a good snow picture has been made by judiciously plant-

ing those No. 10 boots! You pick out a spot where there are some nice shadows, wander through the foreground in an S curve, and presto! there's your entry for the next club competition. A good way is to set your camera on the tripod (You *always* use a tripod for snow pictures, don't you?) and plot out your curve in the view finder or on the ground glass before you take a step. In that way you

NO GREAT SHAKES as a composition, this picture does show individual elements worthy of further study. At another time of day that ancient carriage with its melting coverlet could make a strange and beautiful close-up.



can be sure that the footprints will make the right design. You can even toss out twigs on the snow to plot your curve if you want to do a particularly cautious job.

Sometimes a familiar object which is partially buried will yield a good picture and for this, old snow may be even better than the new. It may have more texture for one thing, and besides, as it thaws and melts away from an object, it develops odd shapes and curves which you can emphasize by the viewpoint. Keep your eye out for this type of subject when you are looking for pictures in old snow.

Then you wouldn't be forgetting brooks, would you? It's a rare brook that isn't good for a couple of shots, be the snow

old or new. Follow one along for a while and you're sure to find a spot where the banks curve, the shadows sweep across, and the open water winds about in an interesting pattern, like the one called "Polar Bears." Heaven knows you won't be doing anything original if you shoot a brook. Perhaps it wasn't David Octavius Hill who tried the first one in the snow, but it must have been right after that, and nobody much has passed it up ever since.

Good snow pictures don't have to be taken right after a storm. A simple composition in a small area will do the trick. Remember that the next time you have to wait till the week-end before you can go hunting for snow pictures.

POLAR BEARS

NEWELL GREEN



PIN UPS

The army's favorite reading matter . . . by Roman Freulich

Republic Studios, Hollywood

"PIN-UP" is the most popular form of photography. Magazines and newspapers fill their pages with it. Men have grown opulent selling it. Tons of letters are received by motion picture studios with requests for "pin-up" pictures. Young stars are made famous by it, and well established stars, no matter how important or dignified, gladly pose for it, knowing well its publicity value.

"Pin-up" is not new or revolutionary. In ancient Greece and Rome, it was created out of marble. During the Renaissance it was created on canvas with oil paints only for the benefit of kings, noblemen and money-lenders.

Today, every Tom, Dick and Harry has a "pin-up" picture of a beautiful girl, which he can call his own. From the G. I. huts of Guadalcanal, many a pin-up picture has been filched, which today adorns the regal hut of a native chief. Which just goes to show you woman is the closest thing to savagery.

In modern times, I believe, Mack Sennett, started it. Sennett, in the silent days, engaged famous photographers of women and they made luscious studies of these bathing beauties. These photos were displayed in theatre lobbies, and drew terrific audiences. Since then every wide-awake producer has used this type of photographic art to garnish his billboards.

"Pin-up" art can be shot outdoors, or within the confines of a studio. Every effort is made to subdue the background. The subject is of paramount importance. Filters are very useful for this purpose.

Only four filters are really necessary, the medium yellow, orange, red and light green. These will produce the desired effects by darkening the sky in varied degrees.

The result of using filters is that although the natural surroundings are still seen, the subject is brought forth into a sharp relief. The light green is the finest of filters for this purpose. It accomplishes what the others do, and then some. It not only subdues the background, but renders it ineffective without bleaching the lips of the subject.

Any type of camera can be used (I prefer a 4x5 Speed Graphic). The subject must be at ease. The clothes should be either a well-fitting bathing suit, a gay play suit, or a short skirt and sweater. Watches, cigarettes or purses detract.

I always strive for cross-lighting, because in a direct front light the subject will squint. Flat lighting will also produce a flat picture. When shooting in cross-lighting, one deals with the simplest of set-ups. The sun streams down on one side, and you place the reflector or flashlight at an angle to soften the shadows on the opposite side.

How far from the subject you place the reflector, is a matter of experience. If your desire is to wash out all the shadows, the reflector should be close to the camera. If a mixture of shadow and light is wanted, the reflector should be moved away from the subject and also away from the camera.

When flashlights are used, the formula



GOVERNMENT PIN-UP GIRL

GEORGE RICHMOND HOXIE

WHEN THE ARMY Morale Division needed a pin-up girl to inspire soldiers overseas to buy bonds, Marjorie Stewart was chosen. The morale branch named her "The Girl Back Home." (Wabash, Indiana in this case). She's had more proposals of marriage than any other movie star.



JANE RUSSELL, the fiery star of Howard Hughes "*The Outlaw*" has been a pin-up favorite for two years. Although she has been in but one movie, and that was shown in but one city—Jane is as well known as any screen star. Her publicity agent did it all with pin-up pictures.



MARTHA TILTON, beautiful blue-eyed, blonde motion picture star has just returned from the South Pacific playing the "Foxhole circuit." America's first lady of swing, she was a soloist with Benny Goodman. When she left the States she carried with her a fruit cake for Major Ralph W. Bohne of the U. S. Marine Corps baked by his mother. The star delivered the Major's present.

is the same as with the reflector. Before shooting, the subject should be relaxed and her face should have a gleam of joy.

When making standing shots, always shoot from a low position to take advantage of perspective, and give the subject a willowy body. There are thousands of ways to pose. Anything that gives the body curving lines, is good. It is best to shoot three-quarters from the side, not full figure. Head-on shots are seldom as pleasing as three-quarter shots.

On reclining figures, one naturally should shoot down. Shoot a straight shot when the figure is sitting, and shoot up when standing. All this is with one purpose in mind—to lengthen the figure and avoid distortion. When shooting down, use either a step-ladder or high tripod as the camera should not be too close; and should be pointed in the same direction as the subject to prevent distortion. The only time I shoot down at an angle is when I wish to lengthen the girls' legs. Then and only then I move the camera in the direction of the girls' feet.

The subject can lie flat on the floor, rest on a couch; she can elevate her head slightly when reclining; in fact she can do anything that relaxes the muscles and puts her at ease. To prevent distortion one should place the camera in such a manner that the distance from the lens to the head is the same as from the lens to the feet. This avoids foreshortening.

When shooting up, one should remember to have the subject's face horizontal, not tilted upward, or you'll get a very "beautiful" picture of her neck and jaw.

The cardinal principle of glamour photography is to improve the person's appearance—but some things even a camera cannot improve. Hence one should do only certain things as befitting a certain person. A girl with skinny legs should not wear a bathing suit. When the subject has heavy thighs one should avoid photographing her sitting. Let her stand on her toes. The camera should be low. By making her appear taller the thighs will seem to be thinner.

More on distortion. One will invariably avoid distortion by keeping the subject's face or body "level." By that I mean, don't permit your subject's head to tilt forward too much—the forehead will become distorted. If the subject will raise her chin too much—the chin will become distorted.

Distortion can, and should, be used to correct certain imperfections. As an example: If a person's nose is too long—the camera should be lower than it would be normally.

I always implore my subject not to have a hearty lunch before picture-taking time. Too much eating has a tendency to create a homely bulge where streamlining is necessary. Before shooting, ask the subject to take a deep breath. This little stunt will depress the abdomen and accentuate the bust line.

Inside a studio, the problem of posing is the same as outdoors. One can simulate outdoor effects, but at best it is only an imitation. A well equipped studio is an ideal place for three-quarter length "pin-up" shots. The subject may wear a very attractive, tight-fitting, low-necked evening gown, or a negligee.

I usually use one light as my "key" light. The other lights are subordinate to it.

Flood in contrast to one spotlight, flattens out the subject. Flood should be used only to soften shadows.

Lighting has to be used like medicine—what is good for one patient may be poison to another. Each person has to be lighted according to her own physical make-up. If a person's face is round, the key light may be placed 45 degrees off the subject, either to the left or right. In this manner one will get a shadow on one side of the face, adding length.

A person with a long face—perhaps high cheek bones, will lend herself to be lighted by "butterfly" lighting. "Butterfly" because under the nose will be a shadow resembling a butterfly.

This is done by having the "key" light at a 45-degree angle above the camera. There is one purpose here—to improve

upon nature and shorten the face.

Highlights should be balanced and not too "hot." A blonde's hair can easily be burned into a white mass by too much highlighting. A brunette's hair, on the other hand is more difficult to highlight. I suggest using some shiny substance on the hair, to help capture highlights.

Many a picture is spoiled by dry and dull hair. There are numerous ways of highlighting hair. The best, is to have a stationary light 4 or 5 feet above and the same distance away from the subject. Another method is to have a light behind at an angle, but one should be careful not to place it in such a manner that it

leaves the ear's shadow on the cheek.

An effective way to highlight the hair is to have a light behind, and on the same level as the subject. Here, care must be taken so one doesn't see the light itself.

Whereas outdoors one endeavors to capture the gaiety and laughter of being young and alive, indoors one should capture the dignity, sensuousness and charm of being a woman.

Music is very useful. Waltzes, Congas, Rhumbas are appropriate. My assistant once placed an album of Stephen Foster melodies in the phonograph. My subject became lethargic.

OUTDOOR SUBJECTS, such as this picture of R. K. O.'s Elaine Riley, can be faked in a studio, by using one main light to simulate sunlight, and one or more smaller lights, to fill in the shadows. A mural, or projected image simulates sky. If the picture is taken outdoors, you can use synchronized flash to illuminate the shadows. When the model is sitting, it is wise to have her weight on the side away from the camera, to avoid distorting the hips.





STUDIO, or outdoor shot? You can make this more imaginative type of pin-up either place. Outdoors a white cardboard reflector helps illuminate shadows caused by the sun. Dropped eyelids, and long lashes help to give a sensuous appearance to June Vincent of Universal Pictures.

Each picture should have nice composition, each should have high-lights and shadows which make it an interesting study. But composition, lights, shadows and perspective, should be subordinate to the subject.

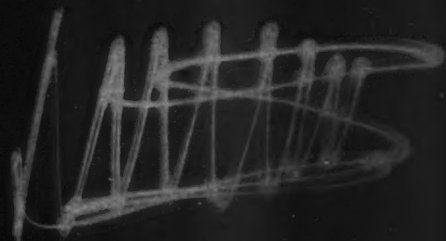
Except for special effects, background should be simple and far enough away to be out of focus, thereby making interesting designs. Never clutter up the picture with too many props. This tends to take away the interest from the subject.

The making of "pin-up" pictures cannot be reduced to any set formula. Suit-

able arrangements of lights and proper diffusion are important, but more important is to bring out the personality and character of the subject.

In conclusion, I wish to say that the finest "pin-up" pictures are those which are skillfully posed. By a skillful contribution of lighting, posing and proper composition, the photographer will produce a picture of good taste and a thing of beauty.

And as John Keats said, "Some things are for beauty."



What's This?

BRUSHING TEETH in the dark, with a flashlight strapped to her wrist, is a give away that this young lady was in too big a hurry to finish the job and be on her way. Flashlight pictures can be used to study the grace and flow of movement. Try them on a child studying ballet.

George Balloin



A BUTTERFLY is created by flashlights worn on wrists when model removes her jacket.



THE FLASHLIGHTS follow an intricate pattern when the young lady removes her slip.



WHAT'S WRONG WITH

Beauty?

By BARBARA GREEN, A.P.S.A.



F. P. G.

YOU hear much these days about taking pictures with a Meaning (yes, with a capital "M"). "That picture has no Meaning" someone will pipe up, as you proudly exhibit a picture of snow in all its new-fallen beauty. "Why did you take it?" "What's the purpose of that picture?" is heard from all sides.

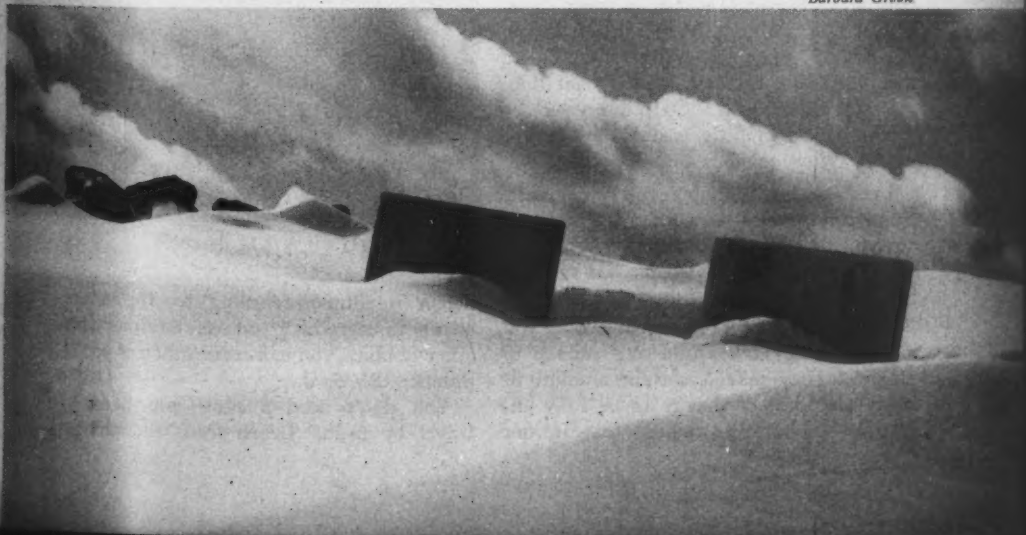
Well, I suppose there might have been more of a Meaning had I taken an old drunk and put him into a snow-covered ditch, thus pointing a moral. Or, I might

have taken a few children coasting down the road, showing the exuberance of youth. (They may have been mere specks, but *then* the road would have a Meaning!)

Instead, I committed the apparently unpardonable sin of taking a picture of nothing more than some of the most beautifully textured snow I've ever seen, plus a few shadows. True, it isn't enough for a masterpiece, but I should like to know what is so terribly *wrong* with photographing beauty for its own sake?

PERHAPS BEAUTY IS NOT ENOUGH FOR SOME

Barbara Green



Poor beauty does get pushed around an awful lot these days. Perhaps it's true that beauty is in the eye of the beholder and no one else sees the beauty I did in that snow, its texture and shadows. But, if he can't see it in simple things, I suggest that for a tonic refreshing to mind and soul, he start trying to find a little beauty here and there in his daily rounds.

Now I, too, have taken pictures of the pre-war downtrodden, such as migrant workers and their sordid living conditions. I know very well that there's a need for such things to be told through photographs. But let's consider for a moment, the person who sees nothing but the squalor and the dirt and the misery. I'd like to know why that person should be intolerant of the photographer who loves trees and sunsets and woods and rain and changing seasons—and tries to capture their beauty.

True again, our efforts to convey these moods of nature to others may be none too successful. But if, through one of our pictures (and now I sound like an evangelist!) *one* person begins to notice clouds for the first time in her life—or blue shadows on the snow for the first time in *his* life—who is to say that picture was not worth taking?

An appreciation of beauty is something which has to be fostered. Would that it were poked into children, along with Vitamins A, B and C! But, in most cases, it is not, and the children remain undernourished. They grow, but there is no love of beauty in their souls. What shall we offer them, then? Only the misery of the world—or a little beauty for them to share? Why would beauty be wrong?

Let's go on to hobbies. Psychiatrists plead for hobbies for young and old. If anyone doubts their value, just watch some pathetic old man who has nothing to do—nothing to do but exist.

All right—hobbies are good. But, you may say, they take time and money to pursue. They take a certain amount of study and skill, if they're to be fully enjoyed. All but one hobby, that is, one



RENE BRAS—F.P.G.

which is simple—learning to appreciate beauty in everything you see. And, as with other hobbies, you can learn much if you'll practice day by day.

You don't need a car—you needn't travel by train. Learn from the things



MORNING ON THE HUDSON RIVER

within your reach: that desk, whose maker found beauty when he matched the grain of the wood—that book, whose designer reflected his love of beauty in the selection of its type—that rug, whose weavers sought beauty in color and design.

But, to get back to photography—what, I ask again, is wrong with photographing these things *if* it's beauty you see in your daily life? It's all around us—just as real and earnest as the other side with its unhappy Meaning. Why should it be ignored?



Take the salons, for example. Occasionally, now, a hue and cry is raised by some that they are too old-fashioned—full of nothing but sweetness and light.

Whether such criticism is justified or not, almost everyone will agree that the *salons* should reflect what is going on today. If it's well-done, it *should* be included. But nature, with her calm, magnificent, yet sometimes terrifying beauty, "goes on" too, you know. Why should *she* not be photographed? Perhaps beauty is not enough for some. But would you really feel satisfied with a salon whose pictures had nothing but Meaning?

There might be a Meaning in a bag of onions you've photographed. But, why wouldn't there be as much Meaning (and, I'll wager, more beauty) in a picture of a

Ronny Jacques

EXTRA BLANKET

A. L. BENJAMIN



single sprouting onion? Why refuse to take beauty, if it'll make a better picture? There might be a Meaning in low angle shots of babies' bottoms. Such shots have certainly had their innings. But children's bodies are full of beauty. So are children's faces. Why not photograph *that* beauty, as well as the merely ludicrous?

Right now we must portray all the horrors of a bloody war. *That* cannot be beautified, nor should it be. But don't forget that in the midst of war and misery, the people of Leningrad continued to look for beauty. They stood in line for hours, in sub-zero temperatures to wait for seats in unheated concert halls and theatres. Such a need, such a craving for beauty should have *Meaning* enough for the most skeptical among us.

H. Armstrong Roberts

IDES OF MARCH

DR. GLENN ADAMS





"... HER DOLLS LOOK LIKE CHILDREN."

Out of This World

ILLUSTRATIONS BY RUTH BERNHARD TEXT BY HERMAN WEINBERG

EAST 26th Street in New York City seems strangely removed from the bustle of Manhattan as you follow it toward the four-story brownstone where one of America's crack women photographers makes her studio. The street is quiet, and across from No. 119 East 26th Street the fortress-like wall of the 69th Regiment Armory gives the block a medieval appearance.

How would Ruth Bernhard differ from Margaret Bourke-White, Toni Frissell, Berenice Abbott and the other "lady cameramen" who had made their mark? I

had already seen some reproductions of her work, but I was not entirely prepared for what I was soon to see after being admitted into her top-floor studio.

As you step across the threshold you know instantly that this is the orbit of a curious personality. The walls are yellow, the floor green, and the first object in sight is a sand-box containing a grotesque landscape of sea-shells, crooked twigs, and the skull of a rabbit (over it a 4x5 Speed Graphic which Miss Bernhard uses as a view camera). The painted chairs are tiny—almost child's size; dolls' heads peep

"...YOUNG PEOPLE WITH 155MM SHELLS TO PLAY WITH."





out from random corners, and there are sea-horses and lighted candles on the carved marble mantelpiece. You are taken aback for a moment, until you remember that this is the abode of a woman who has been called the "most romantic photographer in America" and a "lyrical poet with a camera."

And there she is, small, slim, and bird-

like, with quick nervous movements, tousled hair, twinkling eyes, and the faintest trace of a German accent. She is dressed in workmen's blue denim pants and coat. The effect is startling to say the least—it is like meeting an elf in overalls. The hand she extends in greeting is delicate but strong, and her handclasp is firm as a man's.

We dove right into several large portfolios of her work, and the next two hours were "out of this world." I sat enchanted as the magic of Bernhard's make-believe camera unfolded. Here were sea-shells at rest from the tumult of the sea; mysterious wind-blown nudes hiding their faces; quiet, serious children like dolls, and dolls like quiet serious children. Psychologists would have a Freudian field day analyzing the recurrent use of these images in Miss Bernhard's work. Her style is subjective and rich in subconscious motivations.

Full of poetry and tenderness, Bernhard's photographs have the melancholy charm of a German fairy-tale. They are touched by a sad sleeping beauty which makes you think of the legend of Snow

White, who was put into a trance by the wicked witch. In that legend Snow White was brought back to life by Prince Charming. But as you go through Bernhard's pictures, your heart sinks, for you realize that her nudes will never raise their heads, her dolls' eyes will never twinkle, her children will never smile, her sea-shells will never dance the ballet of the waves. For Miss Bernhard knows that the world is still waiting for Prince Charming to rescue Beauty from the clutches of Covetry, Ignorance and Selfishness.

She has created a world of her own imagination where she is still a little girl playing with her dolls, untroubled by problems of politics, money and sex. Miss Bernhard is the first to admit that her pic-





tures are a medium of escape. But if her pictures said nothing more than this, they would not be worth much. The positive value of Miss Bernhard's pictures is in their attempt to restore truth, innocence and beauty in our lives.

She is a romantic, yes, but she is also a realist. Going back to the scenes and images of childhood for her esthetic, she levels a sensitive protest against a world which gives its young people 155mm shells to play with, not sea-shells, and which disfigures the innocence of its nudes with fig

leaves. She lives in an ivory tower, but her windows look out on the house next door.

She closed the last portfolio and I came back to 26th Street with a thud.

"Biographical details?" She smiled quizzically. You mean tell that I am a mother of Sara Bernhard or something. Really, is that necessary? Don't you know all about me from my pictures?"

Of course. Still, she was born in Berlin and came to this country in 1927. Like so many fine photographers she is self-taught. A brief bout with typography was her



ONCE EVERYTHING WAS PART OF THE SEA.

only formal training in art. Her father, Lucien Bernhard, is a world-famed type designer. She wasn't even interested in photography until she arrived in the United States. Photography struck her as an "unemotional medium." Anyway, it was a challenge to her.

"For me it was as hard to keep emotion out of a picture as it was for so many others to put it in."

Once started, she went the whole hog. She photographed everything—reportage, portraits, industry, fashion, science. Reproductions of her work appeared all over

the country. Then her range narrowed down to the things she liked best and when the proper subjects are not forthcoming, she collects sea-shells and does "bread-and-butter" portraits and pictures for industrial designers.

She has had but one steady job, taking fashion pictures for the Sears-Roebuck catalogue, and she quit that after a few tedious weeks. She is probably the only photographer who ever went to Hollywood and didn't take pictures of movie stars. She lived on the West Coast from 1936 to 1939 and did portraits of children



RUTH BERNHARD

and non-movie folk. "I cannot photograph anything that does not interest me," she says. This insistence on artistic independence has kept her from earning an income commensurate with her enormous talent.

Her photographic ideal is Edward Weston, whom she met in California. She calls him "my master." Although his influence on her pictures has been considerable, their styles are poles apart. Once you know Bernhard's work you can never mistake it for any other photographer's. It is impossible to tell how old she is, and she won't tell. "I know the value of every age and I am as old as I choose to be," she says cryptically. She is in her early thirties and that is close enough.

She looks surprised when you ask why she hides the faces of her nudes. "The face in the nude detracts from its purity," she answers, simply. She is one of the few women photographers of the nude, and she is incomparably better than most male

(Continued on page 90)



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ON AND ON

RUTH BERNHARD

Experiments in Color

WALTER V. STRATE

THE simplest method of making a montage is by multiple exposure. Place an object before the camera, reserving some blank space in the ground glass for the second shot. After the first exposure, take the holder out of the camera, focus the second object, which will have to be placed into the reserved space of the ground glass, and shoot again. You thus obtain the double shot in one negative, which will be printed like any other simple negative.

But this method has a number of drawbacks. You have to make your definite composition in the ground-glass while or before you shoot. Once the shot is made, no changes are possible. You are obliged to use a black background because the double shot is based on the fact that black areas in front of your lens will not affect the silver on that part of the emulsion, and therefore, a second shot on the same area (this time with a lighted object) will work as if the shot had been taken upon a new negative. But, by having to use black backgrounds, the number of possible combinations in your montage is reduced considerably. There will mostly be a clean separation between the two objects of your montage in a double shot. Of course, you could have your subjects overlapping, but this is a very difficult procedure.

There is no doubt that where you have the choice, you should use the more complicated method of working with two or three negatives, if a montage in black and white is desired.

In color work the situation changes considerably: so far the only method of doing a montage in Kodachrome or with Ansicolor is by multiple exposure.

The picture of mine, on the opposite page is a simple double shot. Over the page you will find one by Samuel Wu

made with seven different exposures. For your first experiments, however, I would advise you to try a simple double exposure. You're good at that? Plan this one!

Undoubtedly a large variety of combinations for such colored double shots can be thought of. You could combine almost anything, as long as you do it on a black background: a face with an object, the shot of a person in full length with a close-up shot of a face, two different close-up shots of one person. But here, more than in any other montage work, you should carefully avoid using two incongruous objects which have no relationship to each other, and which would look as if they just happened to be placed upon a single negative. This is of tremendous importance: never forget that there is no texture, no medium, binding the two things up into a visible unit. The black background, instead of bringing the objects together, separates them. Therefore, the composition is of the greatest importance; the two shots should hold together by their choice.

Technically speaking you should make your double shot in color as if you were taking a single object: read your meter carefully, in order to have a correct exposure for each object separately, because under-exposures are as bad as over-exposures in color. The fact that the same negative is used for two shots should in no way influence or reduce the time of exposure, because the black areas will not affect the silver whatsoever, and therefore, the second shot should be made at the normal full-length exposing time.

Choose your colors carefully, also. A small fault may ruin a very beautiful composition. You should have a lot of satisfaction in your eventual results, for these experiments will teach you much in the handling of color material.

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Walter V. Strate





Joe Seltz

EXPERIMENTS IN PHOTOGRAPHY need not be excursions into fractional F's or multi-colored filters. The relaxed naturalness of a professional model is rarely revealed in her photographs. This particular young lady stretches her hand, yawns, lifts her eyes—perhaps gently mocking this chichi background of pink mesh.

SEVEN EXPOSURES. Count 'em. When he can find the time, Samuel Wu likes nothing better than shooting experimental setups in color. Here is one of his newest, made on Type B Kodachrome loaded in a 3¼ by 4¼ Speed Graphic. That rich diversity of color is due to the use of color filters placed in front of one 500 watt spotlight. One model hand was used against a black background for three exposures—the camera was moved slightly and two more shots were made. Then the whole setup was removed and the yellow spot was exposed on a white background. The black background was replaced for the last exposure—the frame.

Samuel Wu



H. Tabor

NIGHT COLOR PHOTOGRAPHY is a rich source for further experimentation. You may remember that some of the most dramatic color shots made at the last World's Fair were exposed at night. Night shots are in the minority thus far, in Color Slide Salons, so if you are looking for something different, take that loaded camera out after dark.

Some of Mr. Tabor's most successful pictures taken in Reno and Virginia City were made at dusk—when the lights were on—but when there was still some light in the sky. Where fluorescent lights were predominant, he found that Daylight Type Kodachrome *used at night* gave results which were far superior to photos taken of the same subjects with Type B film, which would appear to be the more correct film to use. In cases where the sky shows at night it takes on a bluish-purple cast, setting off the street signs more fully, rather than showing them suspended in mid-air.

When red and orange predominate, however, the warmth of the color would indicate use of Type B color material. Try stopping down to F16 and vary your exposures from 4 to 8 seconds, depending on distance, amount of light and reflections. As in black and white work, night street scenes can frequently be improved with additional reflections caused by wet pavements.

As to difficulties encountered—one of the greatest, of course, is movement and automobile headlights. Since a tripod is necessary, overcome this difficulty by covering the lens when a person wanders into the field of view or an automobile approaches.



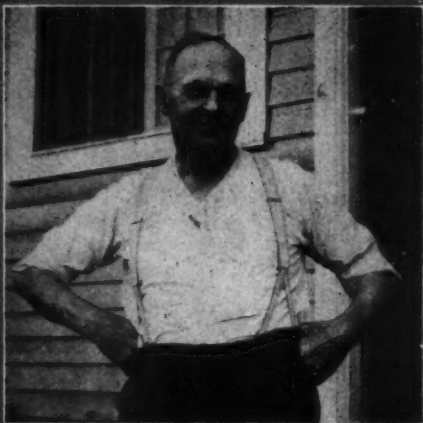
DETROIT 6:40 P. M.

MICHAEL J. ROLL

THE WIDE LATITUDE of black and white film (as compared to using Kodachrome) makes night shooting easier if you desire detail throughout the picture. Dusk with the lights coming on is an ideal time to photograph in black and white—there is still a chance of getting some detail in the dark areas while the contour of the buildings stand out boldly against an ever darkening sky.

camera sketch PORTRAITURE

J. C. WELLER



How to make sketches from portraits even if you aren't an artist

MANY of us have, for a long time, been trying to retouch undesirable wrinkles, double chins, freckles, and other human weaknesses. A painter isn't troubled by these realities, he doesn't paint them . . . unless with a purpose.

Here is a process which combines the ability of the photographer to capture fleeting expressions with the advantage of the portrait artist to discard all disturbing defects. And it requires no sensitized paper to produce a finished portrait. Backgrounds may be changed, added or removed; and damaged, grainy, or even out-of-focus negatives can be used.

Add to this the fact that your friends will consider you a portrait sketcher in addition to your reputation as a photographer, and you have reasons enough to give it a try.

The process itself is simple. The nega-

tive is placed in a projector and an image of it is projected onto a sheet of paper tacked to the wall. The light areas of the projected image are then gradually filled in with charcoal, crayon, Conté crayons, or pencils that will leave a dull mark. Lead pencils are not used because they leave a shiny mark, and reflect light from the projector, making it impossible to judge the density of the work.

Any one of the standard projectors is satisfactory. But in the event that you have no slide projector and are "just dying to make a camera sketch," it may be done by using an enlarger to project the image onto drawing paper. But don't get so absorbed in your work that you forget to turn off the enlarger at frequent intervals to prevent heat from buckling the negative, even if it is an old, scratched one. You might regret it some day.

The brighter the lamp in the projector, the more detail will be projected, but if this is carried too far, heating becomes a serious problem. Moreover, the excessive detail that becomes visible may lead you to overdo your drawing. In most projectors, a 100 watt lamp seems to be a good compromise. Even with the 100 watt lamp a fan should be placed near the projector. If the speed of the fan can not be adjusted, a lamp may be hooked up in series with it to slow the fan down for continuous operation. In projectors where lamps of low wattage cannot be used, it is advisable to cut down the voltage at the projector by means of resistance.

If the negative is too large for the projector a duplicate reduction negative can be made. To use 35mm film in a 2 by 2 projector, mount the film in a glass slide as you would Kodachrome.

The best drawings are made from correctly exposed, correctly developed negatives. Such negatives will have a full scale and will yield successful drawings.

Filters may be used on the projector lens when working with colored pencils. A truer conception of the amount of color you are applying will be received when the entire image is the same hue. A K1 filter helps tremendously with sepia, and the contrast of a sanguine drawing is increased if a red filter is used. When using a filter, the lamp wattage may be raised to 200, providing your projector will safely take a bulb of that size.

Perhaps one of the best easels to work on is a plain piece of celotex, or wall board, smooth side out. This may be fitted into the window to shut out the light, or it may be tacked to the wall. To prevent distortion, the beam of light from the projector should be at a perfect

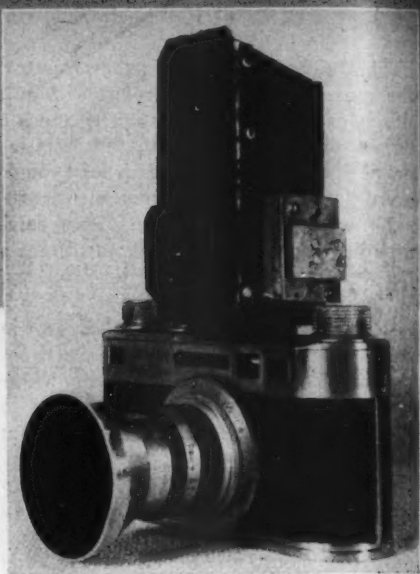
(Continued on page 89)

COMPARISON of the three steps in making a camera sketch. Above is the original portrait from which the sketch in the center was made. Below is the negative projected on a sheet of white drawing paper, ready for the artist to start to work. Note small print at left center, which is used as a guide, in sketching.



REFLEX VIEWER for a 35 MM. CAMERA

By P. L. Miles



MANY AMATEURS would like a reflex camera, but hesitate to part with their 35mm. camera. Then there are others, like myself, who wear glasses and find it difficult to sight through the conventional viewer. With a reflex viewer installed on a 35mm. camera, it is possible to use the conventional viewer and rangefinder, when you so choose. Built flush with the back of the camera, the reflex viewer does not interfere with the control knobs, whether in a horizontal or vertical position; and it may be attached and detached easily. Focussing differs from a reflex camera, as the viewer lens is fixed focus from three feet to infinity. The image appears right side up, and like all reflex cameras, the right side of the image is on the left side of the ground glass.

Photographs may be made from waist level and the viewer is indispensable for taking low angle shots of children, animals and flowers. The biggest advantages are that it simplifies composing pictures, and takes the guess work out of copying with a supplementary lens by showing the field of view. After the camera and copy are set up on the copying stand, holding the supplementary lens in front of the reflex

viewer lens determines the field of view. Allowance for parallax is necessary, as it is with a conventional viewer.

At parades the camera may be turned upside down and held high above your head to shoot over the crowd. The cost of the viewer is negligible as it may be made from any available metal. The lens for this viewer, along with lenses of various focal lengths, may be purchased from the Edmund Salvage Co. (See adv. page 9.)

Before assembling the viewer, it would be wise to study the drawings and follow them through, step by step. Cut two pieces of metal to form part A, which is $2\frac{3}{4} \times 4 \times \frac{1}{2}$ inch; measure in $\frac{3}{16}$ " along the 4" sides, scribe or draw a pencil line and bend on this line. When bent to shape the inside measurements should be $1\frac{1}{2} \times 4$ ". Next cut two sides (B) $1\frac{3}{4} \times 4 \times \frac{1}{2}$ ". Clamp the four pieces together with small C clamps and drill a No. 40 hole in each corner. Then bolt all pieces together using 2-56- $\frac{1}{4}$ " screws and nuts and check for squareness. It is important that the bottom end be flush and square. Now make the bottom (E) of the same, or heavier material. When bent to shape, the outside measurements should be $1\frac{3}{4} \times$

A REFLEX VIEWER aids in composing pictures and adds versatility to your 35mm. camera. This one can be mounted either vertically or horizontally, allowing the camera to be used either way.



1 $\frac{3}{8}$ with two sides $\frac{7}{8}$ " high and it should fit snugly into the body. One of these sides faces toward the front of the viewer and the other toward the back.

Place in position and drill two No. 40 holes through A and E $\frac{1}{4}$ " from the bottom and sides on both the front and back. Use 2-56 screws and nuts to bolt the front. As the back must be removable, for cleaning lens, ground glass and mirror, use small self-threading screws. Draw or scribe a line around the entire body, using a combination square, one inch from the bottom of the viewer. This will be the center line of the lens and camera side clip. Draw or scribe another center line vertically through the center of each part including the bottom.

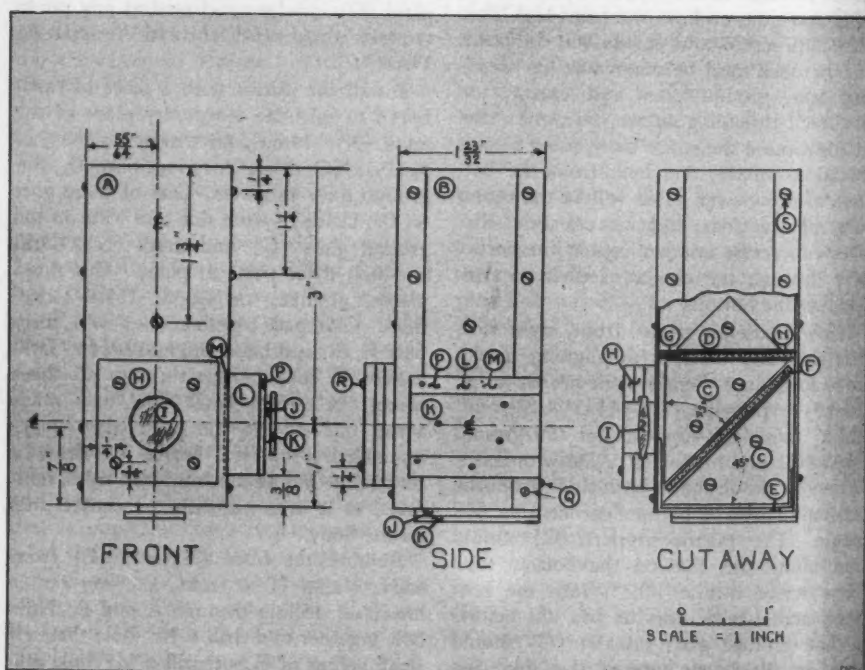
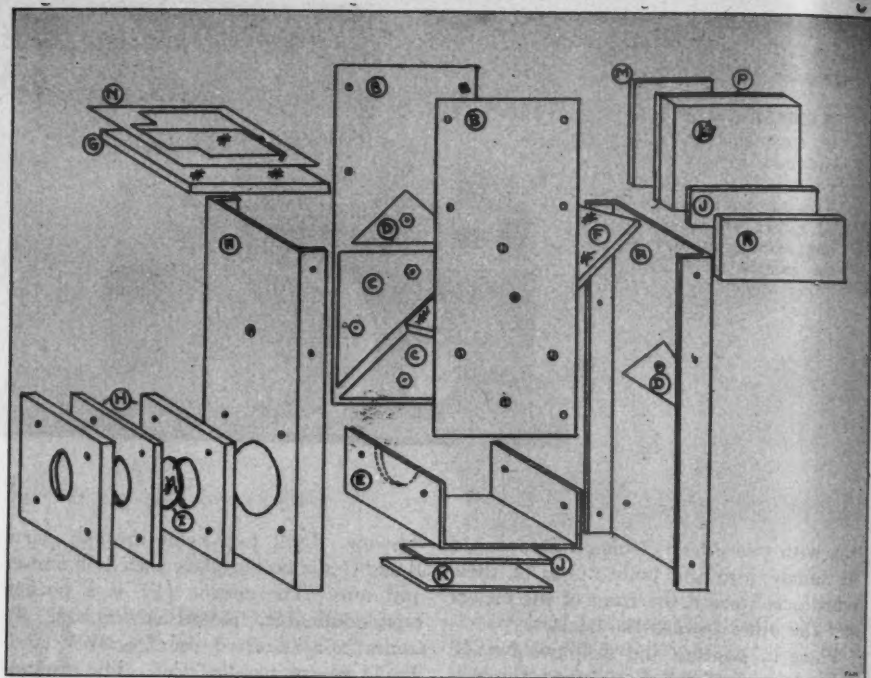
Now mark all parts—front, right side, left side and back, with aligning marks, so as to replace them in their proper order. Make 4 triangles (C) $1\frac{1}{2} \times 1\frac{1}{2} \times 2\frac{1}{8} \times \frac{1}{16}$ " thick, these are supports for the ground glass (G) and mirror (F). Draw or scribe a line on the inside of both sides, from the extreme forward bottom corner at a 45° angle. The mirror support (C) should rest along this line on the bottom side. Now scribe a line $1\frac{25}{32}$ " from the bottom, across both sides as you did before.

The ground glass support (C) should rest on the lower side of this line. See

drawing. Drill two holes through parts B and C and bolt in place with 2-56 screws and nuts. The mirror (F) is a pocket type, double face, pasted back to back. It comes in a standard size $2\frac{1}{8} \times 3\frac{1}{16}$ ", and should be cut to $1\frac{9}{16} \times 2\frac{1}{8}$ ". The ground glass (G) can be purchased at any photo supply shop and should be cut to $1\frac{9}{16} \times 1\frac{9}{16}$ ".

Install the mirror with a piece of cardboard to take the temporary place of the mask (N). Make four more triangles $\frac{7}{8} \times \frac{7}{8} \times 1\frac{1}{4} \times \frac{1}{16}$ " thick, forming part D, the ground glass retainers. One of these goes on the inside of each side and rests on the ground glass (G) and mask (N). Drill and bolt these parts in place. Cut three pieces, of fiber or wood, $1\frac{1}{2} \times 1\frac{1}{2} \times \frac{1}{16}$ " thick. Clamped together they will form part H, the sunshade and lens holder. Drill a hole in each corner through all three pieces, $\frac{1}{4}$ " from each side, and mark across one side so the parts may be reassembled properly. Scribe or draw a center line across the front and sides, both ways, so it lines up with the center lines on the body.

Remove the front (A) and (E) from body; clamp H to front, aligning center lines and drilling through A and E. Now bolt together and drill a $\frac{9}{16}$ " hole through dead center of H; or drill a $\frac{1}{4}$ " hole and



file the separate parts to size. Between the second and third part of H file the hole so that the lens (I) will rest snugly in between the parts. If it is too loose, dirt may get into the finished body. If it is too tight it may cause the lens to crack or chip when all the parts are assembled. Reassemble the front (A) and the left side, leaving off the right side and back.

Now for the most accurate parts, the camera clips. Cut a piece of metal the same thickness as the front and back (A) to measure $1 \times 1\frac{1}{16}$ ". This will act as a filler shim. Cut another piece (M) from galvanized sheet iron to $1\frac{1}{2} \times 1\frac{1}{2}$ " for part P, the thickness should be $\frac{1}{16}$ ". Cut still another piece of wood or fibre to the same dimensions, for part L, the thickness can be $\frac{5}{16}$ " or $\frac{3}{8}$ "; draw center lines across all three sides. Clamp it to the left side of B on the center lines after removing bolts and nuts from C and B; drill clear through these holes with a No. 50 drill. Counter sink the outside of all holes in P and tap for 2-56 screws. Now bolt in place with 2-56x $\frac{1}{16}$ " bolts. For the parts J and K measurements must be taken from the flash gun holder of the camera. For this particular camera, the parts J should measure $\frac{7}{16} \times 1\frac{1}{2} \times \frac{1}{16}$ ". It will be necessary to make two parts of both J and K to complete the bottom and side camera clips. The easiest way to align and drill J and K would be to insert them in the flash holder of the camera, clamp the forward protruding edges together and drill one hole in each end. Tap these holes with a 2-56 tap and counter sink both sides of all holes with a $\frac{1}{4}$ " drill. In-

stall 2-56 brass screws so that the screw end is flush on one side, and cut the head as close as possible to the flat surface of the reverse side. Peen the ends of all screws using a steel block and ball peen hammer. When complete, drill several holes clear through parts C, B, M, L, P, J, and K. Follow the same procedure of drilling No. 50 holes, tapping and counter sinking the holes on the outside of K; J, and K may also be sweat soldered to part P to give added strength. This same procedure may be followed in fastening J and K to the bottom E. Make sure that the clips are flush with the back of the viewer. When this is complete, all parts should be painted with aluminum paint, being careful not to get any paint on the lens, ground glass and mirror. Then follow this with one or two coats of dull black paint for the inside of the viewer; the outside may be painted a glossy black. The last step towards completion is to fully assemble the viewer, place it on the camera and align the view with the conventional viewer. Cut the mask out of metal on cardboard which looks like an upside down "T". Both views may be $1\frac{1}{2} \times 1\frac{1}{16}$ "; it is better to make the cut-out in the mask a bit smaller as you will find that you will get better results.

There are many refinements that may be added to this viewer, depending on the ingenuity of the individual builder. It may be made for the Univex Mercury by cutting all the dimensions in half and using a lens of 25mm.—14 or 16mm. in diameter. For other cameras, proportional changes may be made.



BEFORE starting to assemble the viewer, it is a good idea to study the diagrams:

- A—Front and Back;
- B—Sides;
- C—Ground Glass and Mirror Support;
- D—Ground Glass Retainers;
- E—Bottom;
- F—Mirror;
- G—Ground Glass;
- H—Sunshade and Lens Mount;
- I—Lens, 50mm-18mm Diameter;
- J—Flash Clip Spacer;

- K—Flash Clip Shoe;
- L—Side Shoe Spacer;
- M—Side Shoe Spacer Shim;
- N—Mask for Ground Glass;
- P—Side Shoe Wear Plate, Galvanized Sheet Iron or Brass;
- Q—Small Self-Threading Screws;
- R—Two 56x $\frac{9}{16}$ " Screws and Nuts;
- S—Two 56x $\frac{1}{4}$ " Screws and Nuts.

IT'S A NAVY

How many photographers make a Navy? At the start of this war, our Navy had five filing cases of pictures—and as many photographers as Admirals!



OFFICIAL NAVY PICTORIAL PHOTOGRAPHS

BACK in 1940, when Russia and Germany signed a trade treaty, and the Allies evacuated Dunkirk, and seventeen million men registered in our first peace time draft, the Navy's picture assets were contained in five filing cases and the Navy Building at Washington possessed a hole-in-one photographic laboratory.

Public opinion, that giant of all weapons that approves taxes or revolts against them, and heaps social scorn on slackers or laughs off their evasion, was not being comforted with pictures by the Navy.

Since 1940 a world-wide Navy photo organization has been teamed up and now a thousand prints a day pass through the

Y SHOW

For photographers who want to get into the Navy, there is room, but standards have gone up. Today, there are five hundred highly trained ground photographic officers, two hundred pilot officers, and three thousand two hundred and ninety-two photographer's mates, plus five hundred photographic interpreters.

Photographic Interpretation, new to this war, has combined photography with intelligence work and today there is no enemy area within reach of our photographic planes withholding its secrets from the eyes of our cameramen and the subsequent analysis of the photographs by the photographic interpreter.

Nearly every large unit of the Navy has a Photographic Laboratory and a daily record is made of all activities. These are the actual types of photography employed by the Navy today: Aerial, ground, color, lantern slides, slide films, portrait, wet plate negative, dry plate negative, transparencies, animation, photostats, stereopairs, reversal process, multilith, lithograph, blue printing, brown printing, offset, X-ray, infra-red, ultra-violet, and spark flash-stroboscopic.

Resolved to simpler terms, photography is used in the Navy not only to acquaint the public with what the Navy is doing, but it is also used to record fleet maneuvers for tactical studies, to capture the flight of projectiles, and their ability to penetrate armor plate, to make photographic records in color of medical research work, to provide progress records of the construction of ships and yards and docks, and to record the movement of the stars for the Naval Observatory, that gives all of us our official time.

Naval photographers and photographic officers (including aviator photographers) are trained at the Naval Photographic School at Pensacola, Florida. There is no special pay nor privilege connected with being a photographer. The reward is in the honor of wearing the photographer's badge on the sleeve, and in the fact that Naval photographers see all the action in the performance of their highly hazardous tasks.

Every Naval action is photographed in

MORNING PATROL

office of Commander E. John Long, officer in charge of the Pictorial Section. Battle photos made in the Central Pacific are flown to an island radio photo center and within the hour are transmitted by high frequency to the Pentagon Building at Washington. That same day they appear in newspapers.

at least three stages: first, the original reconnaissance of the area before the action takes place; second, the actual photographing of the action under battle conditions; third, the photographing after the action to assess results.

Each Combat Photography Unit consists of an officer and three enlisted photographers, two specializing in motion and one in still pictures. Material produced is available for use by the interested bureaus, technical and intelligence study, the preparation of training films, the formation of a historical library, and, when not incompatible with security, for public release.

At present there are eleven Combat Units attached to Commanders of Naval Forces, operating in all parts of the world. The Units have recorded every major battle and invasion occurring since they reported to the fleet, from snowy Attu through the Central and South Pacific to the jungles of New Guinea, from the bleak North Atlantic shores of Iceland to the Italian beaches of the Mediterranean.

A Special Photographic Unit attached to the Office of the Deputy Chief of Naval Operations (Air) is making a historical photographic record of Naval Aviation. Commander Edward J. Steichen, USNR, is in charge of the Unit, assisted by Lieut. Willard E. Mace.

Certain Navy pictures have clearly influenced public opinion. For instance, the first photographs of Pearl Harbor were not published until more than a month and a half after the disaster, because it was not known exactly how much the enemy knew about the damage caused by its planes. Recruiting in the Navy had been good, but shortly after the first photographs of the disaster were released, recruiting shot to its highest level, even though the photographs showed for the first time a major U. S. military defeat. There is no question that the photographs had indignation value.

Another series of photographs you may remember are those dramatic shots taken

of the sinking of the U.S.S. *Lexington* in the Battle of the Coral Sea. The loss of the *Lexington* was a shock to all of us, and those who saw the photographs of the men sliding down ropes into the sea, from the flight deck, will never forget them. In this battle the Japs lost several carriers and other ships, even though the best photographs of the engagement showed the loss of one of our best carriers. However, it undoubtedly helped to bring home the seriousness of the Japanese attempt to sever our life line to Australia in May, 1942.

FROM Commander E. John Long, mentioned above, comes this personal dispatch which takes us into the life of a Navy public relations photographer:

Until two years ago, I was on the National Geographic Magazine. But I did have a chance to 'get a little salt in my hair' when the Director of Public Relations, Captain Leland P. Lovette, assigned me to a tour of additional duty aboard one of our aircraft carriers at sea.

This tour of duty is part of a new policy to give every Naval officer, a chance to learn a little about the Navy at first hand. The main idea is to get some of the Washington 'rocking chair brigade' out with the fleet and the air-arm, to learn the problems of the fleet and also to answer questions and bring back suggestions to Washington.

I can't give you any first hand reports of battle action, because unfortunately my tour of duty proved to be as uneventful as a Cook's tour, so far as the enemy was concerned. But I did see every other phase of life aboard one of our big flat-tops. I now understand why the men on our carriers consider themselves 'the cream of the crop'—although submarine men and battleship men, and the mosquito boat crews would probably give me an argument on this.

Carriers, however, have a special esprit de corps. The men who run them must be quick on their feet, and they must combine a wide knowledge of two elements—the sea and the air. Carrier men

take a fierce pride in their ungainly-looking ships, and there is a long waiting list of men within the Navy for carrier duty. The Bureau of Naval Personnel can choose from the best men available. Once aboard they are all subject to the most severe scrutiny from the Captain down to the mess boys. Several times I heard the remark, 'He is a good man for some other spot in the Navy, but he isn't carrier stuff!' My first surprise was that we

sailed without a plane aboard, and I wondered if we hadn't forgotten something! However, this is customary, because a carrier's planes can best be serviced ashore. They are flown ashore when a carrier comes in to port and flown out and landed on her deck after she leaves.

We had hardly cleared the submarine nets and gotten underway before we heard the humming of scores of motors and our squadron of F4F Graumman fighters and

WARBIRDS AT PEACE



TBF Torpedo bombers banked sharply around the ship. The loud speaker barked, 'Stand by to receive planes,' and we headed into the wind. Astern rolled a destroyer, ready to pick up any planes that might miscalculate.

When the planes began to swoop in one after another, I began to understand why carrier men consider their life exciting even when there is no enemy around. Each and every landing is a gamble, and nerves are taut until the plane is on the deck and secure. Some of the pilots were slightly new at the game. Their landings were part of a finishing course. Others already had Japanese meat-balls painted on the sides of their planes; a miniature Japanese flag represents each plane shot down by the pilot. They are a young, clean cut lot, these carrier pilots, and they know their business.

As the carrier plows along through the sea on the way to its mission, patrol planes are sent out scouting, but others may take

"HIT THE BEACH!"





LUSH TROPICAL BEAUTY—WARZONE

off and land at intervals to keep the men in practice. When the men are not on patrol flights, however, they attend schools aboard the ship,—ship personnel as well as the flight personnel. Such schools enable enlisted men to obtain training that fits them for Petty Officer ratings. They were well attended by earnest lads anxious

to add chevrons or stripes to their sleeves.

The old days of slum and hash are gone, and so are the crude utensils in which they are cooked and served. Aboard today's carriers meals are cooked in huge copper kettles steam heated, and service is cafeteria style. There are several choices, and second helpings if you want



COMPOSITION—LIGHTER THAN AIR



DOUGLAS "DAUNTLESS" DIVE BOMBER IN ACTION

them. The food is served on aluminum trays with compartments for the different foods. The U. S. Navy early recognized the morale building value of good food well served, and the same food for officers and men. Officers check on the food as often as they check on the fuel, ammunition and other essential ship's equipment.

All hands are kept actively busy from 6:00 in the morning until chow time at night. Those not on night watch may attend a movie show in the hangar deck every night. Men aboard battleships are not as fortunate these days, because with the present compartmentation of the big battle wagons there is no space to show movies indoors.

On the carriers, the hangar deck can be closed in, and, with its high ceiling, it makes an ideal theatre. The best Hollywood features, slightly out of date, are shown. The first reel is always a training

film, illustrating some phase of Navy life, such as Navy skills or crafts, or possibly plane or ship identification. Some of them are animated, produced by the Disney studios in Hollywood. The men seem to like them although I noticed the loudest cheers were at the end, just before the regular feature began!

At all times the men are ready for anything. There are, of course, rafts of many sizes, which are maintained on sliding platforms, and can be released quickly. These contain casks of water, food, and signal equipment, and there are enough of them so that a crew may cling to them until rescued. One small boat is reserved for the officers entrusted with codes and secret papers, but the Captain has to take his chances with the men, and is traditionally the last one to leave the ship.

My orders were to the Central Pacific area, including Johnson Island, the atolls

of Tarawa, Kwajalein and Eniwetok. I flew over Jap-held islands twice, missing air raids by a few days at Eniwetok.

Many arm-chair critics were inclined to scoff at what they call "island hopping." But this atoll fighting gained for us the springboards needed for a frontal attack on Japan. It was entirely different from the kind of fighting that would be necessary to conquer an opposing fleet.

Nearly all these remote islands, whose names—Tarawa, Abemama, Makin, Majuro, Funafuti, Kwajalein, and Eniwetok—were in headlines, are coral atolls. Most of them lie only a few feet above sea level and support little vegetation except palm trees and shrubs. You may recall in your geography lessons that atolls are formed by the sinking action of volcanic craters in the ocean. As the crater subsides coral reefs and islets form and continue to grow until long after the crater itself has sunk below the surface.

In this age of combined air and sea power the atoll provides a made-to-order air and sea base. Why the Japs did not make better use of them we shall never know until we capture the Imperial Archives in Tokyo. Most of the fortifications I saw in the Marshalls and Gilberts seem to have been built within comparatively recent months. They were poorly made of palm logs with coral sand between. The Japs also built a few concrete gun emplacements and some short air strips in various atolls. The Japanese had more than twenty years to prepare in the Marshalls. Yet our Seabees and Army Engineers have done more to make them effective military bases in the past six months than the Japs did in twenty years.

Tarawa fell to the combined assault of the Fleet and the Marines on November 23, 1943. When I visited Tarawa there was still much evidence of our heavy bombardment. The main islet of the atoll, on the east side of the lagoon, is a scene of desolation, with palm trees pointing their headless trunks into the dusty sky and the rusting hulks of landing craft still stranded on the coral heads and along the beaches.

In Tarawa, life is still "rugged," as the

men say. The trade winds blow constantly, stirring up the dusty coral, broken by bombs and shells. Despite screening, flies are everywhere. The heat is oppressive; you are only a degree and a half from the equator. Dust gets into your clothes,



"I AM A UNITED STATES NAVY FLYER"

into your hair and into your food, and even makes its way through tightly sealed lockers and duffel bags. Swimming in the ocean is forbidden, partly because the water is polluted and partly because many

mines laid by the Japanese have never been cleared out. Drinking water comes from condensed sea water, as it does aboard ship. Washing water comes from brackish wells. One never feels clean.

One part of Tarawa spared bombardment is the native village. Here brown Gilbert Islanders still live much as they have for centuries. The native village is "out of bounds" for all the soldiers, sailors and Marines on Tarawa, although the Commanding Officer and the Chiefs of the village have permitted photographs to be taken of the natives and their ceremonial rites and costumes. With the circulation of American newspapers and magazines among the natives, imitations of our clothes and way of living immediately became apparent, sometimes with humorous results. The women, for instance, have tried to fashion evening gowns from sand bag sacks!

If you could see, today, the restricted map showing the military air lines radiating out of Tarawa to all parts of the Pacific fighting front, you would realize our two thousand casualties were not in vain. Tarawa's present air chart looks like a railroad map of Chicago. It was truly the air and sea key to all the Central and South Pacific.

Tarawa was an unsinkable aircraft carrier for our air and sea assaults on the rest of the Gilberts, and, in turn, the Marshalls. Lying as it does, almost on the bee-line between Honolulu and Australia, its name will probably be a familiar one on peacetime air-line timetables.

To return to the strategic value of atolls as bases, the inner lagoon provides an ideal landing place for flying boats and other amphibious aircraft. Trade winds may whip the waters of the open ocean, but the encircling ring of reefs and islets nearly always leave enough calm water in the lagoon for easy sea plane take-offs. Lagoons with channels connecting them with the open ocean also make fine anchorages for ships. Some of the atolls I saw in the South Pacific and Central Pacific could hold the entire United States Fleet, with plenty of room to spare for the British Fleet and all the other Navies of the world.

From Tarawa I flew by a Naval Air Transport cargo plane, an R4D, to Kwajalein Atoll in the Marshalls. En route,

the plane skirted several Jap held islands, including Jaluit and Mille. We kept out of anti-aircraft range and the Japs did not attempt to fire on us. The airports on these islands have long since been bombed to virtual destruction and all the planes on them destroyed by the daily "milk run" made by our Army and Navy fliers from our newly won bases.

Again, it is a strange feeling to be on American held territory in the Pacific and to know that there are Jap-held islands between you and San Francisco. Admiral Spruance, Commanding Officer of the forces that took these islands, said, "We'll let this outer fringe of Jap islands

(Continued on page 91)

PIG BOAT



...featured in the Press!
 ...taken by our Navy!
 ...made with a Speed GRAPHIC!



Featuring this photograph in a double page spread, LIFE Magazine describes it as a fabulous picture of a fabulous warship. And, across the nation, America's newspapers recognized and reproduced it as one of the war's most remarkable pictures.

Our Navy's new superbattleship USS Missouri fires a salvo...from six of her 16-inch guns. Nearby on a speeding Navy crash boat, a Specialist Photographer 2/c clicks the shutter of his Speed GRAPHIC.

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NEW WABASH EXPOSURE GUIDE

For Superflash and Superflood

HOW TO USE A FLASH FACTOR

First, determine your film speed, lamp used and speed at which picture is to be taken. Then divide flash number by distance between lamp and subject. The answer received is the "F" stop. Where an additional lamp of equal size in a similar reflector is used at 0° to 10° of the camera, one full smaller "F" stop should be employed.

SUPERFLASH						
Superflash Bulb Size	Film Speeds, Black and White (Weston Tungsten Ratings)				Color Film	
	16	32	64	125	KB, AT	KA
No. SF — T, B, 1/25, 1/50, 1/100.....	80	110	155	210	35	55
1/200.....	60	85	120	165	25	40
Press 25 — T, B, 1/25, 1/50.....	160	230	340	400	70	100
In Directed Reflector — 1/100.....	110	160	230	300	60	85
In Directed Reflector — 1/200.....	80	110	160	230	40	70
In Directed Reflector — 1/400.....	65	90	130	180	20	45
No. 0 — T, B, 1/25, 1/50.....	130	180	250	310	60	90
1/100.....	90	130	180	220	50	75
1/200.....	65	90	130	170	30	60
1/400.....	50	75	115	140	20	45
Press 40 — T, B, 1/25, 1/50.....	160	230	340	450	75	110
1/100.....	110	160	230	300	60	90
1/200.....	80	110	160	220	40	75
1/400.....	60	90	140	200	30	50
Press 50 — T, B, 1/25, 1/50.....	190	260	370	480	85	125
1/100.....	130	190	270	360	70	110
1/200.....	95	130	190	270	45	85
1/400.....	80	110	160	230	40	75
No. 2 — T, B, 1/25, 1/50.....	230	320	450	550	95	150
1/100.....	180	250	340	450	80	120
1/200.....	120	160	230	320	55	95
No. 3 — T, B.....	300	450	600	780	140	200
1/25.....	280	425	570	740	120	185
1/50.....	270	415	555	735	110	175
1/100.....	200	280	400	555	100	160
No. 2A — 1/200.....	60	85	115	160	25	40
(Focal plane 1/400 to 1/550.....	45	60	85	115	15	30
shutter synchro- 1/1000.....	32	45	60	80	10	20
nization only.)						
<p>Symbols — "T"— Time, "B"— Bulb "KB"— Kodachrome Type "B" "AT"— Ansco Tungsten "KA"— Kodachrome Type "A"</p> <p>For Kodachrome Type A use a chrome-flash filter of the Fish-Schurman or Omag type. For Kodachrome Type B use a Wratten No. 2A filter or the CC Series. For Ansco Tungsten use a UV-16 filter.</p>						

PHOTO DATA

CLIP SHEET FOR PERMANENT REFERENCE

MINICAM
PHOTOGRAPHY

NEW WABASH EXPOSURE GUIDE

For Superflash and Superflood

SUPERFLASH			
Superflash Color Bulb Size	Shutter Speed	Kodachrome Daylight Ansco Daylight	
		Professional Film	35 mm. Film
No. 25B	Time, Bulb	60	55
	1/25, 1/50	54	49
	1/100	40	35
	1/200	25	20
No. 2B	Time, Bulb	95	90
	1/25, 1/50	85	80
	1/100	65	60
	1/200	50	45
No. 3B	Time, Bulb	150	140
	1/25, 1/50	135	125
	1/100	100	90
	1/200	85	75

Note — No filters are necessary when Wabash Blue Superflash Photolamps are used with daylight type of color film. When blue flash bulbs are used out-of-doors to help eliminate shadows, one-half stop smaller should be used for distances up to 9 feet; beyond 9 feet no change in "f" stop obtained through regular exposure meter reading.

SUPERFLOOD									
Superflood Bulb Size	Shutter Speed	Film Speeds, Black and White (Weston Tungsten Ratings)						Color Film	
		16	20	32	40	64	125	KB, AT	KA
One No. 1 in reflector	1	80	90	115	130	160	224	45	58
	1/5	37	40	52	58	74	104	20	26
	1/25	16	18	24	26	32	45	9	12
	Movie*	14	16	19	22	28	39	8	9.5
	1/50	12	13	16	18	24	34	..	8
	1/100	8	9	12	13	16	22
Two No. 1 or One No. 2 in reflectors or One R-2 Reflector Flood	1	115	130	160	180	230	322	65	80
	1/5	50	58	74	80	100	140	29	37
	1/25	23	26	32	36	46	64	13	16
	Movie*	19	22	28	30	38	53	11	14
	1/50	16	18	24	26	32	45	9	12
	1/100	12	13	16	18	24	34	..	8
Four No. 1 or Two No. 2 or One No. 4 in reflectors or Two R-2 Reflector Floods	1	160	180	230	257	320	448	90	115
	1/5	73	80	100	115	146	204	40	50
	1/25	33	36	46	52	66	92	18	23
	Movie*	28	30	40	44	56	79	15	20
	1/50	23	26	32	36	46	64	13	16
	1/100	16	18	24	26	32	45	9	12

*Movie — Based on 16 frames per second.

Note — Exposure meters wherever possible should be employed for accurate "f" stops.

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CAMERA CLUB

NEWS AND IDEAS

Photography is just like a sweetheart. It literally consumes one's adoring attention. The things one does to satisfy the pleasure of playing with photography are just as inexplicable as the sappy things we do for the wife or girl friend. Some people get mated to photography and are happy ever after. Others do not, and as time passes their ardor cools and no amount of fire building seems to reheat it. It's like the sweetheart affair again. Meeting an old flame a few years later almost always brings forth a sigh of relief—no need to worry about that any more. Trying to reheat one's photographic enthusiasm is like the attempt to get steamed up once more over a cold heatwave that has passed on. It doesn't work. —ATLANTA CAMERA CLUB "NEWS".

OAKLAND CAMERA CLUB'S "Panoram" reports that Nicholas Haz is on his way to Mexico for an extended visit. While there he plans to study the language and conduct some of his popular photo-courses. We'll be eager to hear Nic when he returns—imagine that a Mexican twist may do to his present accent!



The Radiant Screen here illustrated is Model D5—a portable Metal Tripod Screen—sturdy but light, compact, easily set-up, quickly adjustable. Available in sizes from 30" x 40" to 52" x 72".

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The difference is almost unbelievable! Camera and home movie fans say they can scarcely recognize their old motion pictures, stills and kodachromes when they project them on this improved screen surface. Black and whites show up in brilliant contrast. Colors take on new warmth and depth. The explanation: Thousands of tiny glass optical beads firmly imbedded in the snow white plastic screen surface. Light is reflected brilliantly instead of being partially absorbed. An improved process protects screen against cracking or peeling and assures lasting whiteness.

Radiant Screens offer you many new Special Features

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 - 3. Auto-Lock.** (Pat. applied for.) Just touch convenient button for raising or lowering center extension rod and screen instantly.
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CHICAGO PHOTOGRAPHIC SOCIETY, INC., has a new set of officers for 1945: President, Vernan Leach; Vice-President, E. Porter Essley; Secretary-Treasurer, F. L. Purington. Delegates to the C. A. C. C. A. are Fred W. Fix, Jr., and C. E. Brockhausen.

The members of **EL CAMINO REAL COLOR PICTORIALISTS**, have compiled a set of 2x2 Kodachrome transparencies which is available to clubs and organizations for use on their programs. This set consists of 50 slides with brief titles and pertinent information. For information regarding the loan of this set and available dates, write Merle S. Ewell, 1422 West 48th Street, Los Angeles, 37, California.

THE CHICAGO COLOR CAMERA CLUB has limited its regular membership to one hundred—its **ASSOCIATED MEMBERSHIPS** are unlimited, however, and in return for the \$2.50 annual dues the club offers the following to members outside the Chicago area.

(1) A membership in one of the leading clubs of the country—interested only in color slide work. (2) Privilege of entering slides in monthly contests in competition with the regular and associate members. (3) Slides may be mailed in for comment or criticism at any time. (4) The associate member receives the monthly club "Projector"—a four page publication listing club activities as well as "know how" information for the color slide shooter. (5) Access to Color Club's Traveling Show of fifty outstanding slides, many of which have been prize winners in top flight competitions. The show also includes a criticism sheet written by member H. J. Johnson, who is also head of the Color Division of PSA. **CHICAGO COLOR CAMERA CLUB'S** aim in increasing its associate membership is to share to a greater degree its members' experience with other color slide photographers throughout the country.

The 1944 Chicago International Color Slide Salon, sponsored by this club, consisted of 385 slides selected from some 2500 entries.

Ten medal awards and ten honorable mention ribbons were given to the twenty slides selected for special honor. Medals went to: H. Lou Gibson, Rochester; Francis Laverne Johnson, Philadelphia; H. J. Johnson, Blanche Kolarik, and George Lewis all of Chicago; L. H. Longwell, Elmhurst, Ill.; Helen C. Manger, New York City; E. D. Rancey, Columbus; A. H. Scott, Pittsfield, Mass.; and Frin Vanden, Oak Park, Ill. It is interesting to note that of the twenty honor slides, eight were made by women.

THE ANDERSON PHOTOGRAPHIC SOCIETY, Anderson, Indiana is a newly formed photo-organization eager to hear from other clubs. The President is Everett E. Riggs; Vice President, Raymond Kirkland; and the Secretary-Treasurer, Mary Griffith.

From the **ST. LOUIS CAMERA CLUB COUNCIL "Chatter"** comes the best headline of the month, "Audience Learns Lot From

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[79]

Loving Course" (that would refer to PSA's Vice-Presy, Don Loving FPSA of Evanston, Illinois) and also some heedful editorial comment on photographic rationing:

The current rationing of printing paper and film may be a disguised blessing. While the professionals are having bread and butter prints curtailed, the rest of us who do not need materials for our income may be much better off.

Too long did the machine-gun exposure rule this land. Brought on by the miniature roll, serious workers have often carried it over into their cut film work. Trying for one out of many that may be acceptable is not too good workmanship.

More consideration to the possibilities of a given shot, walking around and viewing from all angles, waiting for the correct lighting; all these should be forced upon us by the law of lack of supply. In the long run it should make for real pictures.

All this has been said before—but when Mr. Whiskers says it with rationing, then it begins to mean something. Those with pride in accomplishment will not lose by reduction in supply of film or paper, for they will use more grey matter and less silver salts. (Maybe there is a grain of sense in this. Joke, Ed..).

Paper, films, bulbs, equipment . . . yes we think we have restrictions, we're well aware of acute shortages all along the photographic way. But over in occupied Holland photographers suffered another defeat. The German

language newspaper "Deutsche Zeitung in den Niederlanden" published a decree recently banning the "photographing, filming, drawing or portrayal by any other means of persons or objects out of doors." Should the amateur become lax, he will be punished by unlimited prison sentence, fined and all his equipment confiscated. This same treatment goes for any tripod-toters who might be assisting the photographer in any way. We think we have restrictions!

The name of that camera club out in Whittier, Cal., the CIRCLE OF CONFUSION is not only a honey but a bit misleading. The name came from the photographic term, of course, and does not (?) apply to the members, who are not confused at all, but rather, are making their personalities felt out on the coast. Messers Wiggins, Bishop and Wakefield edit their newsletter "The Circular." They are sponsoring their eighth Annual Salon this year and if you think that is a minor undertaking—just try it.

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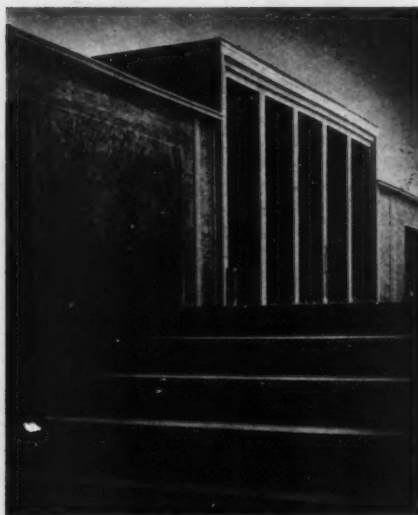
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The first annual Cranbrook Photographic Competition was such a success that plans are under way to broaden in interest and scope



"Academy of Art"—second prize
Edwin A. Daly, Dearborn, Mich.

future competitions. The exhibit, which was displayed at the Cranbrook Academy of Art Museum during December will become a PSA traveling show. Prizes were awarded to Durward A. Du Pont (1st), Edwin A. Daly (2nd), Durward A. Du Pont (3rd), John Augenstein (4th), Eldrew Ruggles (5th), and Donald L. Dean (6th). Honorable Mentions went to Eliza Miller, Joy Griffin West, Elwood Armstrong and Durward A. Du Pont.

Brooklyn, home of the Dodgers and that equally famous "Tree" is also the home of THE LENS MEN, a newly organized camera club. Meetings are held Monday evenings in the Community Center Building, 1660 Fulton Street, which is equipped with a large studio, dark room and workshop. You are cordially invited to drop around some Monday evening, or keep in touch by mail with the Secretary, Owen Hall.

To make the naturalist a better photographer, and to lead the photographer to a greater appreciation of nature are the aims of the NATURE CAMERA CLUB of Chicago. The meetings alternate between the two viewpoints. Field trips are included in the club's activities and are mutually instructive.

For information about this new type of camera club, write to Louise K. Broman, 5834 S. Western Ave., Chicago 36, Ill.

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Albert Thermo-Sealer	12.50
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2x3 Slide File Cases—Albert Bakelite (100 Capacity)	2.40
"3-Drawer" Leather Covered Case (300 Capacity)	6.00

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Leitz Slide Binders—35mm—Box of 100	3.75
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Wash-Off Relief Accessories

Tricolor Imbibition Chemical Set (Complete for Relief Matrix Processing)	2.50
Transfer Dyes for Wash-off Relief Color Printing—	
9EK-ABC Dyes—500 cc.	4.50
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*Curtis-Duraycolor Dyes (Concentrates for 1 gal.)	3.00
*Defender Pan-Chroma Relief Dyes—for 2 gal.	2.50
E.K. Wash-Off Relief Film or Defender Pan-Chroma Relief—	
8 x 7—dos.	1.25
8 x 10—dos.	2.75
11 x 14—dos.	5.25
14 x 17—dos.	8.25
Curtis Hardening Bleach—to make 2 Gal.	1.30
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2 1/2x3 1/4—1/2 doz. sheets	3.65
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Quart Size	1.85
Gal. Size Kit	3.20
1 1/2 Gal. Size Kit	5.15
3 1/2 Gal. Size Kit	7.50
Ansco Color Print Paper—(For direct projection from Separation Negatives or Kodachrome Negatives)—	
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Miscellaneous

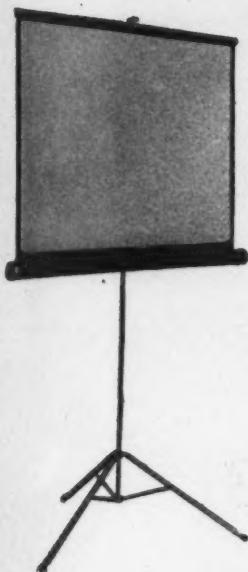
Heavy Duty Double Print Roller (for dye transfer or small size pigment combining)	8.50
Devlin-Colorgraph Retouching Colors (for Color Prints)	
3-oz. set of 3	1.50
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Curtis Retouching Colors (for Kodachrome)—Set	3.20
Bulbs—3200° K—500 W—inside Frosted	.75
Color Books—	
"History of Color Photography"—Joel Friedman	10.90
"National Color Processes"—Carlton E. Dunn	3.00
"Making Colour Prints"—Jack H. Coote	.75
"Trichrome Printing"—Autotype	2.00
"Fotoshop Handbook of Color" (A Complete Course on Color)	1.50

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6. **CONVERTIBLE SCREEN SIZE:** Square (40"x40") size for stills or slides are convertible to oblong (30"x40") size for movies by merely raising Screen to indicated position.

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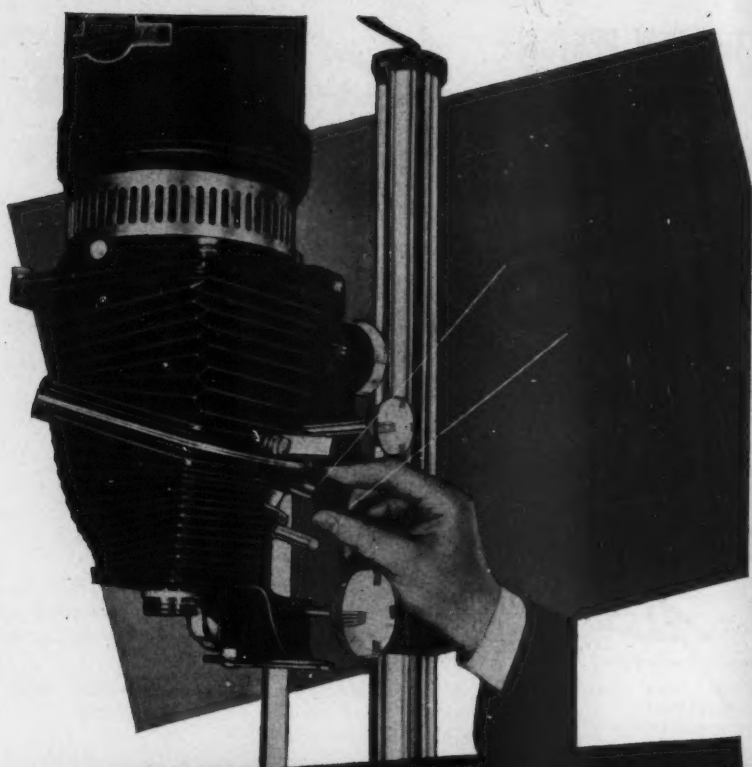
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Portraits

Sir:

Eugene Haeson's letter in the January issue interested me. He has discovered that a portrait photographer should be a practical psychologist. A con man would lack essential subtlety. Facial expression is the all-important thing and desirable results are best achieved by making the model happy about the whole thing as he expressed it. The subject makes the picture and all the photographer can do is to help her over the jumps, and to develop a sense of timing so he can snap the shutter at the right instant. Complimentary remarks and build-up are essential but they should carry a sincere note to be effective. A knowledge of camera, darkroom and lighting mechanics is presupposed, the problem is one of securing the best expression. Luck will play a part, but laws of percentage are most important and a large number of exposures should be made with a given setup, working just for expression.

To the amateur interested in people, portraiture is the world's greatest hobby. Every sitting is a fresh challenge, not alone in pho-

tography, but in psychology as well. The rewards are certainly as great in satisfaction of the ego as are those for time spent sketching or painting.

Remove the dental clinic atmosphere from the studio and make the subject like you, at least temporarily; be quick to see and comment on her good points and then get at least a dozen negatives. A small reflex is the best camera from all points of view for this work, as a suggestion, a $3\frac{1}{4} \times 4\frac{1}{4}$ Graflex with roll film adapted to take 120 or B-2 size.

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MOVIES—SLIDES—PHOTOS

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GORGEOUS Girls—Adventure—Sports—Travel—Comedy Films. Equipment. Big 1945 Catalog, 3c stamp, Audit, Box 6520-EG, Philadelphia 38, Pa.

EXCHANGE Kodachrome slides that you have taken for other Kodachrome slides not in your collection. Send twenty-five cents coin or stamps, for our plan, latest catalog and membership card in the Pan-American Color Slide Exchange, 212 Pacific Ave., Houston 6, Texas.

POPULAR Comedians—"The Three Stooges," 50 ft. 8MM., \$1.75; 100 ft. 16MM., \$2.75. Glamour girl lists, sample, dime. Zientek Films, 1129 Monroe Circle, Baltimore 25, Md.

BETTERPIX, Outdoor Safety Film, 100 ft. 16mm., \$2.50, 25 ft. Double 8mm., \$1.25. Free Developing. Finished subjects sold, exchanged. Sound library. Better Films, 742 New Lots, Brooklyn 7, N. Y.

PIN-UPS, 180 gorgeous girl subjects! Samples 25c—Huge Bargain Pack \$1.00. Clover Novelty, Dept. M-32, Hollis 7, New York.

BEAUTIFUL Kodachrome Slide and List, 25c. Art Slide Co., R-1, Canton, O.

FREE, Projector Film Catalog; samples, 10c. We have all movie items. Goodwill Company, Jackson, Tennessee.

"GORGEOUS Girl Photographs," darling candid poses by dream girl models. Biggest line—finest glossy prints in country. Sample assortment and complete lists \$2.00. (None free.) Clover Company, Dept. 31-X, Hollis 7, N. Y.

8MM.-16MM. home movies exchanged, bought, sold. Free particulars. Multi-prizes, 171 Euclid, Bridgeport 4, Conn.

EACH DIFFERENT! Kodachrome slides 2-41, 5-32; 35mm. negatives 10-41; 35mm. transparencies, unmounted 15-41; Pin-up photographs 10-31. Fine Arts Box 2084-P, San Antonio 6, Texas.

TOPS! 16mm. Musical Movies, Fast-moving sound film reviews with big-name stars, Hollywood stars. Sample \$7.50 illustrated bargain list Free. Eastern Film Libraries, Dept. 207, 95 North Main, Watbury 14, Conn.

MOTION PICTURE EQUIPMENT SILENT-SOUND

8MM-16MM FILMS, bought-sold-exchanged. Complete 360° sound subjects, \$5.75. Lists (sample film, 10c). International, C. 2120 Strauss, Brooklyn, New York.

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CAMERA FILM—We still have it. 16MM. 100 feet, \$2.50; 8MM double, 25 feet, \$1.25; includes processing, immediate delivery. Bram Studio, (586) 35 West 44th St., New York City 18.

CAMERA FILMS—100 ft. Panchromatic 16mm., Weston 64, \$4.85; 25 ft. Double 8, Weston 64, \$1.89; free processing. Movie accessories, chemicals. We do processing. Free circular. Fromader Genera, Davenport, Iowa.

35MM. NEGATIVE Eastman X Axi Supreme; 25 feet, \$1.35; 50 feet, 2.35; 100 feet, \$4.15, postpaid. Established 23 years. Knight's Film Service, 140 Ridgeway, Los Angeles 26, Calif.

PICTURES AND POSTCARDS

64 ART PHOTO POSTCARDS of Gorgeous Beauties, \$1.00. Read Notely, Dept. B-3, Box 24, Queens Village, N. Y.

DEVELOPING—PRINTING REPAIRING

GLOSSY Contact Prints 3c each from any size film, negative except 35mm. Capewell, 136 Maple Ave., Haddonfield, N. J.

HAVE your photographs looking better by oil coloring. Small sizes, \$5c; 8x10, 75c; Leica size, 26 1/2; Haver St., Claremont, N. H.

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ENLARGEMENTS—Eight 5x7 from negative \$1.00; six 5x7 from photo \$1.00. Robert Renshaw, Jr., P. O. Box 40 Chester, Pa.

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PIANISTS—Quickly improve technique, sightreading, accuracy, memorizing, playing through Mental-Muscular Coordination. Free Booklet. Broadwell Studios, Dept. 175C, Covina, Calif.

MISCELLANEOUS

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REPRODUCE any snapshot on halftone slides, leatherette, stationery, etc. Outfit, \$1.00. No stamps or checks. Dismal Co., 4667 Rockwood Road, Cleveland 5, Ohio.

Book Reviews

Photo Oil Coloring for Fun or Profit, by Lucile Robertson Marshall. U. S. Camera. 135 pages. \$2.00.

Refreshing my memory on coloring photographs, with Lucile Robertson Marshall, in her new book, *Photo Oil Coloring for Fun and Profit*, was an enjoyable experience.

There has been much discussion on the subject and perhaps it is one of the most kicked about mediums in photography. A layman who knows nothing about photography except that "this portrait looks just like Mamie," has plenty to say about colored portraits. You may hear him remark that "this was a perfect likeness until they colored it." No doubt he thinks it was the fault of the process rather than the fault of the colorist, and he will swear off hand colored portraits for life. Were the colorist who worked on that picture, to but spend a few hours studying Mrs. Marshall's book, he might find the same customer returning again and again for hand-colored portraits.

Mrs. Marshall's many years of studying art and her knowledge of photography are combined to produce a book which teaches the principles and tricks necessary for producing life-like images, whether they be portraits, animal portraits, or landscapes. She works hand in hand with the reader, showing through text and photographs each step, beginning with wrapping the skewer, to the final step of cleaning off the border. In the section on coloring hair, Mrs. Marshall starts out by saying, "When coloring hair, think of it as having masses of shadow, masses of middle tone, and highlights. In poor work solid strokes are made from the parting in the hair to its end. This gives an unnatural effect."

"In the highlights of the hair, put only two or three strokes of dark and do not extend them clear across the highlight. break them across the middle. All colors for highlights should be used in faint tints only."

She then goes on to tell how to color the various shades of blonde hair, the various shades of dark hair, red hair and gray hair. With specific directions, such as this, on every phase of coloring, even the novice should have little difficulty in coloring a landscape, ocean scene, flower, animal, portrait, miniature, snapshot, mural or transparency. The numerous illustrations in black and white and color are a great help in learning, for example, how to hold the picture you are working on, how to apply rouge, how to accent each part of the eye and how to create an illusion of eyelashes where they are weak or lacking. The skilled worker will find answers to problems in handling special effects and may be interested in the chapter on making money coloring photos.

The book was prompted by letters from thousands of amateurs and professionals who wrote for help from Mrs. Marshall, in her capacity as color consultant and vice president of John G. Marshall, Inc.

BOOK SUGGESTIONS for PHOTOGRAPHERS

Minicam Photography recommends the following books to its readers.

<i>Photo Oil Coloring For Fun Or Profit</i>	\$2.00
Lucile Robertson Marshall	
<i>Child's Garden of Verses</i>	2 00
Photo Illus. by Toni Frissell	
Text by Robert Louis Stevenson	
<i>Elementary Photography</i>	1.00
C. B. Neblette, Frederick W. Brehm and Everett L. Priest	
<i>Graphic Graflex Photography</i>	4.00
Willard D. Morgan and Henry M. Lester	
<i>Leica Manual</i>	4.00
Willard D. Morgan and Henry M. Lester	
<i>Sports Photography</i>	2.50
Lee Wulff	
<i>Correct Exposure in Photography</i>	1.50
Willard D. Morgan and Henry M. Lester	
<i>Our Sons Will Triumph</i>	2.50
Jack Dixon	
<i>First of Many</i>	3.75
Captain John R. McCrary and David E. Sherman	
<i>The Model</i>	3.00
William Mortensen	
<i>The Command to Look</i>	2.00
William Mortensen	
<i>New Projection Control</i>	2.75
William Mortensen	
<i>Print Finishing</i>	2 50
William Mortensen	
<i>Pictorial Lighting</i>	2.00
William Mortensen	
<i>Outdoor Portraiture</i>	2.75
William Mortensen	
<i>Amateur Movies and How to Make Them</i>	3.50
Alex Strasser	
<i>Making Your Photographs Effective</i>	5 00
F. A. Lucas	
<i>Fair Is Our Land</i>	5.00
Samuel Chamberlain	
<i>The Valley and Its People</i>	2.75
(A portrait of TVA)	
R. L. Duffus and Chas. Krutch	
<i>Photographic Process</i>	5.00
Julian Mack	
<i>Flight to Everywhere</i>	6.00
Ivan Dmitri	
<i>Winston Churchill In The Mirror</i>	2.75
Rene Kraus	
<i>Handbook of Photography</i>	7.50
Henney and Dudley	
<i>They Called It "Purple Heart Valley"</i>	3.00
Margaret Bourke-White	

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Camera Sketch Portraiture

(Continued from page 57)

right angle to the easel. Of course, you can distort intentionally for caricature effects, or for the correction of perspective in cases where the camera was too low or too high when the original exposure was made.

Standard charcoal paper is best. A piece about 12 by 16 inches should be tacked to the celotex and the negative focussed on it. A good glossy print tacked alongside helps during the drawing. A lamp should be placed on one side of the easel. This lamp and the projector may be operated by means of switches conveniently placed beside the work. As the drawing progresses, the projector can be switched off and the viewing lamp turned on.

While working, all room lights must be turned off and all light reflecting objects should be removed as these can alter the drawing values, just as reflected light can fog a photographic print.

If you are right handed, place your chair slightly to the left of the drawing and start to fill in the light areas of the negative until they match the surrounding dark areas. Use both the ends and the flat sides of the crayons to obtain different effects. As the work progresses, frequently snap the projector off and turn the viewing lamp on. If the work is viewed through a 6 diopter reducing lens a better impression may be obtained. You may prefer using two such lenses for greater reduction.

It is not necessary to use the original background in the negative. If you wish you can substitute another background from a different negative.

Even the first try will not be a complete mess, if you use a correctly exposed, correctly developed negative. The first camera sketch usually leaves the beginner with a strong desire to repeat the performance; for who does not envy the artist's ability to create?

BOLEX

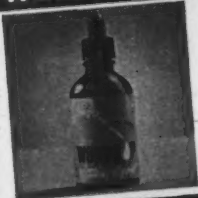
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Out of This World

(Continued from page 49)

photographers at it. In her hands, nude photography is an abstract interpretation of the beauty in the female form. Five years ago she was suggested for a Guggenheim Fellowship to do a year's work on the female nude. Nothing came of the suggestion, but the facetiousness and tawdriness with which much of the photography of the nude is done makes one hope that the Guggenheim trustees may some day recognize Bernhard's unique talent in this phase of her creative work. She herself would prefer to spend most of her time nowadays taking pictures of sea-shells, of which she has a mammoth collection. Her preoccupation with sea-shells is difficult to assay. Perhaps she finds in their dynamic whorls the perfect abstraction of the womb-state when we lay coiled in the bodies of our mothers, sheltered and secure.

Of all her pictures, the classic beauty of the Doll's Head best crystallizes her philosophy and art. From a doll's head, a mannequin's hand, and a photograph of a landscape she has created a mood as poignant and as genuine as a Shelley ode.

Of her own work Miss Bernhard says: "I do not compromise." You can believe that, for even her "bread-and-butter" pictures possess a hair-raising virtuosity. Her pictures of flasks for the Museum of Modern Art and of bottles, packages, cutlery, and machines for such designers as Norman Bel Geddes, Gustav Jensen and Paul Rand are among the fine examples of commercial photography. If she overcame her artistic scruples, she could make a fortune as a commercial photographer. But whatever she does, for love or money, is wrought with all the passion and honesty in her. She is like the knife-thrower who, wanting to get rid of his shrewish wife, decided to "miss" at a performance during which she was to be his foil. But his arm and brain had already achieved such perfect coordination that it was impossible for him to "miss." So he kept on living with her.

It's A Navy Show

(Continued from page 72)

wither on the vine." The Japanese apparently expected us to strike at the islands nearest to Honolulu, but we fooled them and went around through the back door.

In such remote places it is amazing the interest the men take in pastimes that they would otherwise scorn, such as collecting seashells. This is an almost universal hobby, from the Admiral down to the newest seaman.

One of my missions was to look over possible sites for a radio-photo installation. Eniwetok, which already has a good photographic laboratory, is a logical place. With a radio photo installation at such a point, films can be flown back by returning ships of a task force; developed there; put on a radio photo; and be in the Pentagon Building in Washington within an hour or two of arrival in Eniwetok. By this means photographs can follow close on the heels of original news announcements of an attack; another step forward in keeping the public informed of the progress of the war in the Pacific. Such an installation, of course, would be mobile, and could be moved farther out as we move westward and knock at the gates of Japan itself.

Radio photo, it may be added, has military uses as well as being of assistance to the press. Routine reports, sketches, diagrams, etc., can thus be transmitted at high speed. The Army Signal Corps has radio photo equipment in Honolulu.

You've heard the stories of our Seabees as souvenir collectors. They seem to find, first, all the samurai swords, pistols, money and other Jap personal possessions. These, they peddle to late comers and replacement divisions. In one place, when the Seabees ran out of souvenirs to sell to newcomers, they carved wooden pipes, war clubs and other objects, making them look like native wares. These were sold to the native tribes, who in turn sold them to the newcomers as authentic heirlooms. It was a flourishing antique business, far from New England, but everybody seemed satisfied.

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Death Valley (12 views)	Argentina (10 views)
Hollywood (18 views)	Bolivia (12 views)
Zion Park (18 views)	Brazil (6 views)
Niagara Falls (6 views)	Chile (24 views)
Los Vegas, Nev. (6 views)	Ecuador (6 views)
Painted Desert (6 views)	Paraguay (6 views)
Oak Creek Canyon (6 views)	Peru (10 views)
Sunset Crater (6 views)	Ports of So. America (12 views)
Walnut Canyon (6 views)	Uruguay (12 views)

Color slides of important points of interest in the European theater of war as well as war airplanes and slides of our battleships from paintings by Lieut. Comdr. Arthur Beaumont.

Venice, Italy (6 views)	Turkey (6 views)
Rome and Naples (6 views)	Salina (12 views)
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Malta & Yugoslavia (6 views)	Egypt (6 views)
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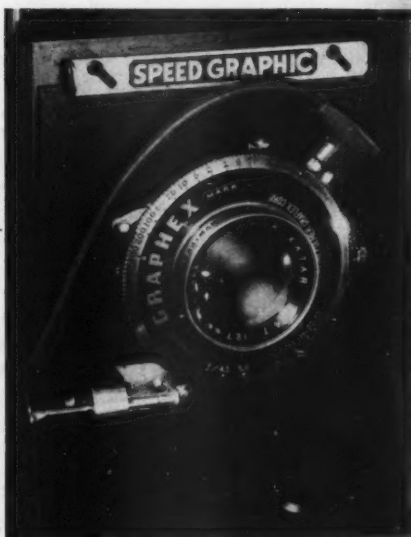


PRODUCTS

New Graphex Shutter Has Built-In Synchronization

GOOD NEWS for the many Speed Graphic users who work with flashbulbs comes with the announcement by The Folmer Graflex Corporation of a newly developed shutter with built-in flash synchronization. The new shutter cannot go "out-of-sync" and eliminates the chance of blank shots as a result of not having the shutter cocked when the bulb fires. Another important feature is the prolonged life of the flash battery, since current is required only to fire the bulb.

The new No. 2 Graphex shutter needs no external synchronized release. It is instead equipped with a special gear train controlled by a dial setting arrangement at the bottom of the shutter. This train is automatically en-



gaged as the shutter is set unless the control lever has been moved to the "Off" position. A click-stop arrangement permits accurate setting of the synchronizer mechanism for synchronization with standard flash lamps with a 20 millisecond delay, for SM and SF lamps with a 5 millisecond delay and for Kodatron lighting with instantaneous contact.

The shutter itself is rim set with a full range of speeds from 1 sec. to 1/400 sec., plus "time" and "bulb". It is equipped with a special Press-Focus lever for opening the shutter blades after the shutter has been set and cocked for an instantaneous exposure.

The Ektar elements in the 127mm. kodak f/4.7 lens are the same as previously supplied in the well-known Supermatic shutter.

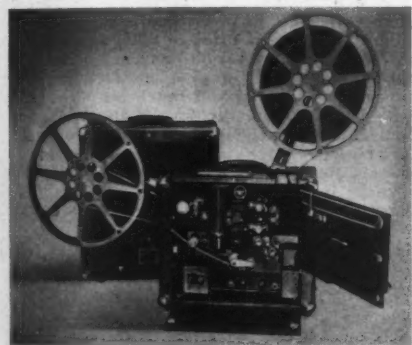
Special attention has been given to protection of the Graphex shutter against dust and dirt. All control levers have been designed to fill as completely as possible the openings through which they operate.

Present Graflex flashing units may be readily used with the new shutter through utilization of a special connecting cord.

The No. 2 Graphex shutter is at present available only to holders of an AA-5 preference rating or better, and is now offered as standard equipment on Speed Graphics.

Sound Projectors

A NEW sound projector, designed especially for 25-cycle operation, the Filmosound Model



156-VB is identical in other respects with the Model 156-V, and is listed at \$453.67. As yet the entire output of this model is allocated to military and high-priority civilian use, according to word from the Bell & Howell Co., 7100 McCormick Rd., Chicago. This low-cycle feature makes Filmosound available for rural areas and other localities where 60-cycle facilities are not obtainable.

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Plaza, New York 20, N. Y.. Water is passed through beds of these ion exchange resins which transform the dissolved salts in the water to the corresponding acids and in turn absorb the acids. The process may be visualized by picturing water as containing flowing metals which are attracted by a magnet except that the magnet, in this case, is chemical rather than electrical.

The final demineralized water has an average salts content as low as two parts per million as calcium carbonate, and has been produced as pure as one-half part per million. The process also removes dissolved carbon dioxide from the water, a feature of particular importance in its use in the electronic and electrical fields. So effectively has water been cleaned of its minerals that its specific resistance to an electric current has been increased to as much as 6,000,000 ohms, which compares with a resistance of 50,000 ohms previously considered to be very good.

The Fil-T-R-Stil is made in different sizes and capacities to meet various requirements. The small portable unit is made in two forms, one for field and the other for bench use. The field unit, designed primarily for use by the Armed Forces, supplies demineralized water for storage batteries and for electronic equipment where water free of dissolved salts is essential to make it a perfect insulating medium. The bench unit, illustrated, is designed for use in



photographic studios, filling stations, drug stores, chemical laboratories, and similar applications.

The capacity of these small units is eight to ten gallons of demineralized water per hour. They are equipped with cartridges of ion exchange resins, which are renewable when exhausted, in much the same way as flashlight

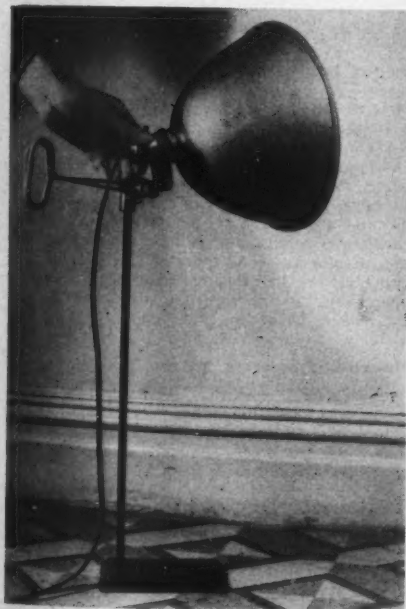
batteries are renewed. An automatic shut-off or warning device on each unit indicates when renewal of the cartridge is necessary.

The Filt-R-Stil Lab unit has a capacity of approximately thirty gallons per hour. It is designed for the larger chemical and research laboratories, hospitals, and other users where moderately large quantities of demineralized water are needed. The operation of the laboratory unit differs somewhat from that of the portable unit. In place of a cartridge, there are four beds of alternate cation and anion exchange resins in pyrex glass columns connected by an intricate piping system. As the water passes over the first bed, dissolved salts are transformed to the corresponding acids. These acids are absorbed on the second bed. The third bed picks up any dissolved salts which have leaked through and the fourth absorbs the remaining acids as well as removing the carbon dioxide.

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Light Stand

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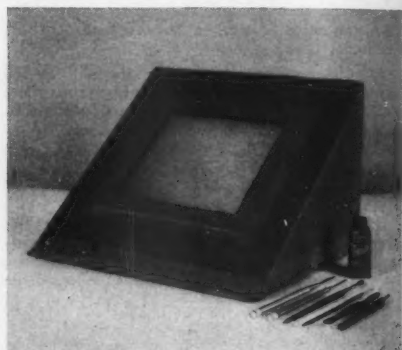
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Cardboard Retouching Desk

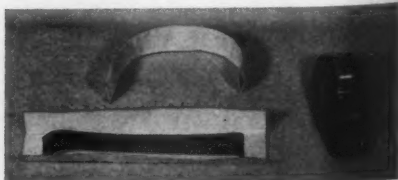
A SERVICEABLE retouching desk can be constructed in an hour or less, for the price of a piece of ground or opal glass and a few feet of gummed kraft tape. A corrugated cardboard box is cut as shown in the photograph,



then a bottom is cut to size and taped into place. An opening, somewhat smaller than the glass to be used, is cut in the desk surface and a recess is then cut to permit flush seating of the glass. All joints and cut edges of the box are bound with kraft tape and the glass is secured in position with masking tape, as this sticks to glass better than the kraft tape. Additional strength may be obtained by adding cardboard panels, cut so that the corrugations are at right angles to those of the desk. A desk lamp, mirror, or other reflector is placed in the open back to provide the necessary light.—Lt. Robert C. Brown, Jr.

Negative Preservers

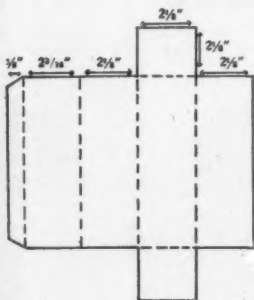
TO MAKE negative preservers for 35mm strips you can use ordinary onion skin typing paper cut in half lengthwise. Each section makes one preserver. The film is cut into strips of six frames and each strip layed on the paper,



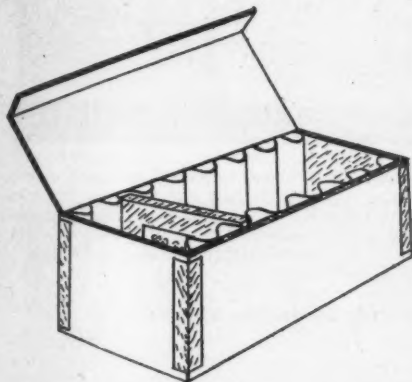
which is then folded over and the lap sealed with two short sections of "Scotch" tape. The paper is sufficiently transparent for negatives to be viewed without removal.—G. T. Lundeen.

Slide File

A BOX for storing or mailing glass-mounted 2x2-inch slides, may be constructed from a piece of corrugated board. Cut a piece of the board to the pattern shown; fold along the



dotted lines and fasten the corners with gummed paper or "Scotch" tape. Then cut two 2-inch wide strips of corrugated paper—the kind which comes in rolls and has one "flat" and one "wavy" side. Paste one strip along



each side of the interior of the box. The length of each strip and the length of the box depend on how many slides are to be accommodated.—Dr. Ira M. Freeman.

Enlarging Masks

TO SAVE TIME and trouble in enlarging have as many pieces of glass cut to the size of the negative carrier, as you have different sizes of negatives. On each glass glue a mask that fits one size negative. The negative has less tendency to slip, when the mask stays put.

If your contact printer has no mask, the same idea may be used on it.—Mrs. J. G. Rhoday.



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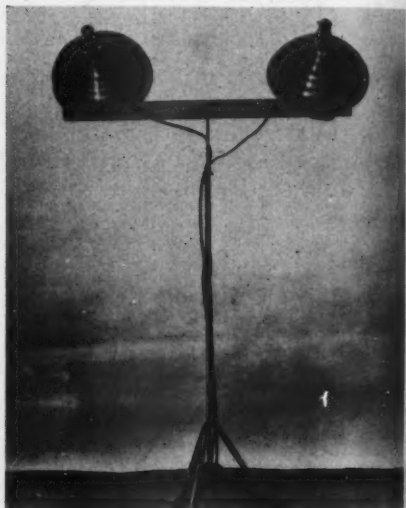


Clean Your Camera

A **CHEMICALLY** treated cloth, sometimes referred to as a "glad rag," may be used to brighten up the metal parts of your camera. The cloths are sold in dime and hardware stores for polishing silver and removing tarnish from various other types of metal. The rag also is excellent for polishing flash gun reflectors.—K. R. Mahaney.

Photo Flood Stand

IF YOU have a movie screen, the stand may be used for a photo flood lamp stand. Drill a



piece of 1x2" wood to fit the extension of the screen holder. Holding the wood in the jaws of a vice while drilling helps prevent splitting. Place the wooden bracket on the stand and clamp the lights to each end of the bracket.—R. F. Bertrand.

Remedy for Sticking Shutters

IF THE shutter on your camera begins to stick a little, slowing up the movement and messing up your timing, try placing a few drops of carbon tetrachloride on the leaves and working the shutter to allow the solvent to penetrate between the leaves. Carbon tetrachloride is one of the best solvents known and will not harm either the shutter or the surface of the lens. While this little kink doesn't always remedy the trouble, it is effective in many instances.—Dr. Russell Raymond Voorhees.

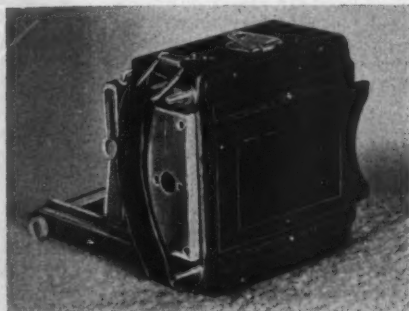
Emergency Safelight

IN AN emergency, an ordinary light bulb may be placed inside of a heavy brown paper sack. The light is safe for contact printing, but when enlarging, if your wife isn't around, you can add her red handkerchief or shawl. Before

starting to print, it is advisable to make tests by exposing to the light, half a sheet of the sensitized paper you are using; the other half may be covered with a sheet of heavy black paper or a box.—W. H. Berry.

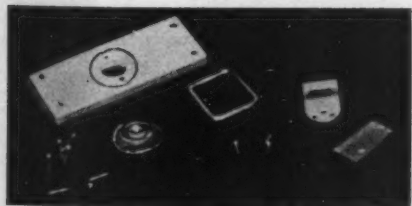
Extra Tripod Socket

IF YOUR press-type camera has only one tripod socket, and you wish to make pictures with the camera turned in the opposite direction, an additional socket may be attached by means of a bracket. After securing the tripod socket from a photo dealer, set it in a piece of 1/4-inch plate (aluminum is fine because of its lightness). The plate is fastened to the side of the camera by means of six small screws;



two passing through the plate and the socket piece so that the socket is made rigid.

If the strap is too short to reach over the bracket, remove it from the top anchor post and sew a ring in the loose end. A snap may be made from stainless steel, spring steel and three screws. One flathead, countersunk screw holds the snap; and two roundhead screws secure the spring and snap to the camera. The strap drops out of the way when the camera



is to be fastened to a tripod head, by means of the new socket.—George T. Lundeen.

Retouching Stand

FOR an emergency retouching stand, replace the red light in your contact printer with a 60 or 75 watt bulb.—Mrs. J. G. Rhoday.

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each contained a pint of Edwal 12 which had processed, according to the record on the label, 4 rolls of 35mm. film. One bottle was tightly corked, the other had a screw top with a plastic inner-liner (it was a Rittenhouse Square Rye bottle, do you know where I can get any more of that?). More than two years thereafter, I checked the contents. The developer in the corked bottle was the color of black-strap molasses; that in the screw topped bottle was barely discolored, so I tried it on a roll of film (infra-red, Kodak Panchromatic "K"), giving 50% longer than standard. Aside from moderate fogging on the edges, the result was entirely satisfactory; and whether that fogging was due to deterioration of the developer, or of the emulsion (which I'd had in stock for more than two years) is an open question.

This is NOT to indicate that it's advisable to keep developer, Edwal or anyone else's, that long, nor even that drinking Rittenhouse rye is the world's best method of getting air-tight brown bottles, though there's a lot of merit in that idea; come to think of it, as the contents of other screw-top bottles oxidized in much less time, and very thoroughly. It does however seem to indicate that it's very hard to tell, just from inspection, which seal is air-tight and which isn't. Corks, generally, seem to be the least secure, no matter how tight they seem. Finally, we may rightly conclude that the manufacturers of the various developers are very conservative in stating the maximum life of their product.

Glass coffee jars with wax impregnated cardboard liners in the screw-tops are convenient and efficient, keeping D-72 in good condition down to the last few ounces, and over considerable periods of time. Variations in temperature make a cork "breathe"; such seems not to be the case with a well-seated screw top.—*E. Hoffman Price.*

Hypo Eradicator

WHEN washing prints, trouble often arises because hypo, which is heavier than water, sinks to the bottom of washing tanks, making an undesirable place for prints to "wash". The device illustrated here is used to drain hypo laden water from the bottom, and at the same time maintain a 3-inch water level.

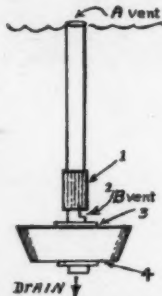


FIG. 1



FIG. 2

Fig. 1 illustrates the complete assembly. Fig. 2 the four items of material necessary; item 1 obtainable at most any garage, a 3½-inch piece of new or used gasoline feed-line pipe or similar tubing. This will make a satisfactory outlet for ordinary home use. For more capacity, use brass light-fixture tubing, pipe size ½-inch, obtainable at electric repair shops. Item 2, two ordinary iron washers, which fit snugly on the pipe. Item 3, a 1-inch piece of rubber tubing or bath-spray hose, also closely fitting the pipe. Item 4, an ordinary laundry tub plug. As illustrated, item 1, fig. 2, file a ½-inch notch or opening in the pipe. Remove ring from rubber plug, press pipe into position. Place washers on the pipe, one above and one below the rubber plug, positions 3 and 4, fig. 1. Next slip the 1-inch piece of rubber tubing on the pipe, position 1, fig. 1, pressing it down until two-thirds of the opening marked B vent, position 2, is closed or covered. Finally cover the two washers with liquid solder, and solder them to the pipe. Follow the directions on the tube of solder carefully. Where solder is applied, scrape metal bright with a knife or sandpaper to insure its adhering firmly. This type of liquid solder hardens like metal and looks like aluminum when set. As it is rust-proof use freely on the iron washers. Allow at least 8 hours to harden.

Your assembly should now be as illustrated in fig. 1. Insert in any sink, old style home laundry tub, or bath tub and it is ready for use. In the case of modern plumbing and lever operated drains, bear in mind that the metal drain plugs are removable for cleaning and can be lifted out with the fingers. If in need of cleaning it may take a little wiggling to get a modern metal plug out, but no tools are necessary to disconnect it. After using the photo-washing plug, merely put the metal plug back in place with a half-turn or two. To use this new washing device turn on the water faucet to the extent that water accumulates in the tub a trifle faster than B vent can drain it away. Level of the water should now rise slowly until it reaches A vent where any excess will drain off through A vent. Hypo laden water at the bottom is now escaping through B vent. A 3-inch water level is being maintained continuously with total amount of drainage at the bottom marked DRAIN. When used in a home bath tub an ideal setup is to use the bath spray or a rubber tube to convey and liberate the fresh water at the tub's far end. When a large number of prints are to be washed, turn on more water and increase size of B vent by raising the 1-inch sleeve indicated at position 1, fig. 1, thus allowing more water to escape.—Guilford Lee.

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SALONS AND EXHIBITS

★FOLLOWS P. S. A. RECOMMENDED PRACTICES

Closing Date	Name of Salon	For Entry Blank, Write to	Number of Prints and Entry Fee		Dates Open to Public
Exhibit to see	★Twelfth Wilmington International Salon of Photography.				Delaware Art Center Bldg., Wilmington, Dela., Feb. 4-28
Exhibit to see	Tenth Rochester International Salon of Photography.				Rochester Memorial Art Gallery, Rochester, N. Y., Feb. 23-Apr. 1
Exhibit to see	★Fourth Chicago International Photographic Salon.				Chicago Historical Society, Clark St. and North Ave., Chicago, March 3-31
Exhibit to see	★Eighth Annual Salon of Whittier Camera Club.				Whittier Art Galleries, Whittier, Calif., Feb. 18-Mar. 4
Exhibit to see	★1945 Philadelphia International Salon of Photography.				Free Library of Philadelphia, Logan Circle, Philadelphia, Pa., March 3-25
February 20	★Second Wichita International Salon of Photography.	Mrs. Martin W. Lentz, Salon Director, 220 S. Halyoke Ave., Wichita 8, Kansas.	4	\$1.00	Wichita Art Museum, Wichita, March 4-18
March 8	★Fifth Paducah International Salon of Photography.	E. Earl Curtis, Salon Chairman, P. O. Box 203, Paducah, Ky.	4	\$1.00	Hotel Irvin Cobb, Paducah, Ky., March 25-31
March 10	★Third Seattle International Salon.	Ray Pollard, Salon Secretary, 4532 California Ave., Seattle 6, Wash.	4	\$1.00	Seattle Art Museum, Seattle, Apr. 4-May 6
March 14	★Fifth St. Louis International Salon of Photography.	W. E. Chase, Room 500, Missouri Pacific Bldg., St. Louis 1, Mo.	4	\$1.00	City Art Museum, St. Louis, Mo., April 3-30
March 30	Twelfth International Salon, 1945, of The Pictorial Photographers of America.	Alexander C. Vogt, Salon Secretary, c/o Pictorial Photographers of America, 106 W. 13th Street, New York 11, N. Y.	4	\$1.00	American Museum of Natural History, New York, N. Y., Apr. 30-May 20
April 9	★Fourth Montreal International Salon of Photography.	Mrs. Blossom Caron, Salon Secretary, 77 Sunnyside Ave., Westmount, Montreal 6, Canada.	4	\$1.00	Museum of Fine Arts, Montreal, May 5-27
April 14	★Sixth Toledo International Salon.	Lev F. Powers, Salon Chairman, 4450 Vermaas Ave., Toledo 12, Ohio.	4	\$1.00	Museum of Art, Toledo, Ohio, May 6-31
May 10	★1945 Whitinsville National Salon.	Whitin Community Assn., c/o Wm. Baron, Whitinsville, Mass.	4	\$1.00	Memorial Hall, Whitinsville, Mass., May 20-26
May 13	★Seventh International Salon of Nature Photography.	"Hobbies" Magazine, Buffalo Museum of Science, Buffalo, N. Y.	4	\$1.00	Buffalo Museum of Science, Buffalo, N. Y., May 16-June 12
May 20	Seventh Annual Salon of Rockefeller Center Camera Club.	Mrs. Helen James, 116 Parsons Blvd., Malba, L. I., N. Y.	4	\$1.00	Museum of Natural History, New York, N. Y., June 17-30
May 22	★San Francisco International Salon.	Wm. H. Patterson, Salon Secretary, 710 Russ Bldg., San Francisco 4, Calif.	4	\$1.00	de Young Art Museum, Golden Gate Park, San Francisco, Calif., June 10-July 4

When writing for Entry Blanks, mention MINICAM

Kodak Bulletin

Easelettes—Snapshots rate better than the usual fate—a fate which finds them rumpled, crumpled, and edge-curved within a week of their emergence, all clean and crisp, from the printing process. Kodak Easelettes provide simple protection for prints;



Snapshots, suitably "dressed"

more, they add to the usefulness of snaps and enhance appearance. And all for five cents each.

Kodak Easelettes are to be had in sizes to accommodate three of the most popular negative sizes— $2\frac{1}{4} \times 3\frac{1}{4}$, $2\frac{1}{2} \times 4\frac{1}{4}$, and $1\frac{5}{8} \times 2\frac{1}{2}$. And there are both vertical and horizontal Easelettes in all three sizes.

Incidentally, the easel-back feature makes it easy and logical to use snapshots as decorations on desks or tables or mantelpieces. And that's a good idea, for good snaps deserve more use, more viewing and enjoyment than they commonly receive.

Kodak Easelettes are made of heavy card stock with a textured gray finish. See your Kodak dealer.

No Skidding—Rubber tips to fit on the ends of the legs of Ciné-Kodak Tripods are again to be had. They come, providentially, in sets of 3. And the price, as previously, is 25 cents per set.

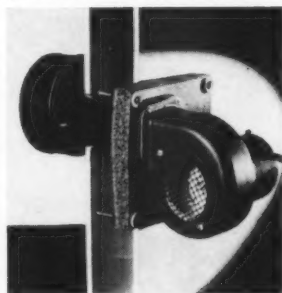
Hard Rubber Tanks—No preference rating is necessary to the acquisition of new Kodak Hard Rubber Tanks. These tanks, reinstated after a considerable absence from the regular Kodak

line, are available in the 4×5 and 5×7 sizes. The smaller tank holds about a half gallon of solution; the larger tank, about one gallon. The number of negative hangers accommodated by either tank depends on their design and size.

Both are sturdily made and impervious to the action of chemicals commonly used in photographic processes. The 4×5 size is priced at \$2.55; the 5×7 , \$3.35.

Ventilator—If the darkroom in which you work is airtight as well as lighttight, it's possible that some sort of ventilating system may appeal to you.

The Eastman Darkroom Ventilator is a complete ventilation system in itself—easy to install, effective (supplies 35 cubic feet of fresh air per minute's operation), quiet, and about as costly to run



For an airy darkroom

as a 25-watt lamp. It can be supplied on the basis of an AA-5, or higher, preference rating. It is priced at \$26.15, tax included.

View Plate Holder Kit—To facilitate the use of small plates in relatively large cameras, Kodak has long supplied plate holder kits. One such, the 5×7 View Plate Holder Kit, with 4×5 opening, is now in production again after an interval in which it was impossible to accept orders for it. It requires no priority and sells, as formerly, for 47 cents plus tax.

Complete Again—There are again three Eastman Pola-Screens. For some two years the middle-size Pola-Screen, $3\frac{1}{2}$ inches in diameter, has been unavailable; now the trio is re-established. The other two Pola-Screens in this group measure $2\frac{1}{2}$ and $4\frac{1}{2}$ inches in diameter. All three are intended for use with a Lens Hood and Screen Holder which fits securely to the



Pola-Screen trio

lens of the camera being used. This equipment is intended primarily for studio use, or for use with studio-type cameras.

Gloves by Kodak—A Kodak product of which few have ever heard (and which even fewer will ever see) is *gloves*—work gloves. In Kodak Park's box department, the full time of about a dozen employees is absorbed in the making of white cotton gloves, in twelve "styles" and five sizes.

About 400,000 pairs of these gloves are required annually to protect the hands and the skills of Kodak workers.

The gloves are worn throughout the plant wherever hands touch film or photographic paper.

At Your Service—For complete, specific, friendly information on all things photographic, keep in touch with your Kodak dealer or write directly to the Eastman Kodak Co., Rochester 4, N.Y.

EASTMAN KODAK COMPANY



For difficult shots— under existing illumination

Made on Kodak Super Panchro-Press Film, Sports Type . . . 1/100 second at f/4.7 under existing illumination.

A FILM SO FAST it gets difficult sports and news shots even in extremely poor outdoor light, or indoors frequently under existing illumination . . .

Kodak Super Panchro-Press Film, Sports Type (teammate of Super Panchro-Press, Type B), has demonstrated that it can produce good pictures under conditions which photographers formerly regarded as "impossible."

When developed as recommended, this high-speed film is twice as fast as Super Panchro-Press, Type B. And if the subject con-

ditions are such that underexposure seems fairly certain, the film can be counted on to build speed with prolonged development; and will show even more speed than is claimed for it—with a minimum of veiling and without excessive contrast.

Especially designed for news and sports photographers, Kodak Super Panchro-Press Film, Sports Type, gives splendid results in a surprising variety of "tough" situations—at relatively high shutter speeds, or with diaphragm openings that afford extensive depth of field.

Available as a sheet film, in the popular sizes; but the supply, of course, is limited by war demands. At your Kodak dealer's . . . Eastman Kodak Company, Rochester, N. Y.

Kodak



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